A Course of Twelve Lectures
ON THE
STRUCTURE AND DEVELOPMENT
OF THE
VERTEBRATE SKELETON.

Recently delivered at the Royal College of Surgeons of England,

BY PROFESSOR HUXLEY, F.R.S.

LECTURE IX.

MR. PRESIDENT AND GENTLEMEN,—At the conclusion of my last lecture I was occupied in endeavouring to identify in the skull of the turtle the majority of the most important of those bones which we had considered so much at length in the other vertebrata. I pointed out in the base of the skull a distinct basi-occipital, and a basilar ossification, which in the adult skull is coalesced with a proper basi-sphenoid. Then, in the interior of the skull, a complete cartilaginous septum, a cartilaginous partition between the two orbits, which represents the pre-sphenoid; a cartilaginous continuation of this process between the nasal capsules, which represents the ethmoid. In the side walls of the skull, again, we had the ex-occipitals well developed, perfectly recognizable; and in the roof the supra-occipital in its ordinary place. But in the front walls of the skull there was no distinctly ossified ali-sphenoid, at least none apparently proceeding from a cartilaginous basis, nor was there any trace of an orbito-sphenoid. In the roof of the skull, as usual, there were the parietals and frontals, but there were no distinct nasal bones—at least in ordinary chelonians,—and their place appears to be taken very much by pre-frontals arching in the front of the skull over the nasal capsules. Then the bones which surround the organ of hearing were in an extremely interesting condition. We identified at once the prootic bone, having just the same relations that we found in the fish, lying immediately behind the third division of the fifth nerve, allowing the entrance of the auditory and of the portio dura, as usual, and lodging the anterior parts of the organs of hearing—that is to say, part of the vestibule and the greater part of the anterior vertical semicircular canal: there is no doubt whatever about that bone. Then between the organ of hearing and the ex-occipital there was a bone of which only a very small part is shown in the interior of the skull, the bone itself, however, being a large one as seen on the exterior of the skull. This bone lies in front of the exit of the eighth nerve, and immediately behind the posterior part of the organ of hearing; it has the fenestra rotunda in it, and also part of the external semicircular canal. By its relations to the eighth nerve and the external semicircular canal, we were able to identify it with that bone which I pointed out in the ephippus, and that bone called the petrosum and other names in the perch, the cod, and elsewhere; and, on the other hand, by its relations to the fenestra rotunda and the rudimentary cochlea we were equally able to identify it with that opisthotic ossification which we found in man.

The uppermost part of the case of the organ of hearing in the adult turtle is formed by what appears to be a continuation of the supra-occipital bone. But there is reason to believe that in the young state that is a distinct bone; it is, in fact, a separate epiotic bone, and has all the relations of the true epiotic element. It results from this arrangement of the bones that there is in the skull a tri-radiate suture: one narrow rim of it running between the epiotic and the opisthotic; then one leg running between the epiotic and the prootic; and a third leg—which is exceedingly broad, and in the dry skull constitutes a large open space, the cartilage having disappeared—between the prootic and the opisthotic. That tri-radiate suture we shall find to be an extremely persistent structure in the higher oviparous vertebrata of which I am now about to speak. The fenestra rotunda is a structure which we have not hitherto met with in the ascending series of vertebrata: it is a distinct hole formed in the opisthotic element, and remaining covered over by a mass of dense membrane like that which covers over the fenestra ovalis, and bringing the external medium into direct contact with the cochlea itself. This aperture makes its appearance in correspondence with the increasing complexity of the organ of hearing. There are rudiments of the fenestra rotunda—traces of it—in some of the higher amphibia, but not lower in the vertebral series than that.

Then as to the inferior arches of the turtle's skull, we have, as usual, the pre-maxilla perfectly recognizable in its place, though but a small bone, and, like the maxilla, containing no teeth, all these parts in the turtle and in the chelonia generally being covered by a large horny shield. Then there are two palatine bones in their ordinary position, and two pterygoid bones; and these pterygoid bones abut posteriorly, as in the lower oviparous vertebrata, on the quadrate bone, and the quadrate bone, as usual, gives articulation to the articulare of the lower jaw; and from the articulare there is continued—forming an axis round which the other bony elements of the lower jaw are disposed—a cartilage corresponding with Meckel's cartilage in the chelonia. The anterior nares are formed in the ordinary way between the prolongation of the pre-frontals (which represent the nasals), the pre-maxillæ, and the vomer in the middle line. But there is a very interesting approximation towards the formation of a posterior nares as distinguished from what we call the median nares. You will recollect that the median nares lay between the palatine bones upon each side, the vomer in front, and the maxilla at the sides—or the inter-maxilla, as the case might be. But when, as in this case, the maxillary bones are very much enlarged, and throw lateral processes inwards towards the middle line, there is a production of posterior nares in the sense that we find in man, and by exactly the same process; that is to say, the proper median nares are more or less shut off from the cavity of the mouth, though slightly so, in the turtle, and the true communication between the nose and the mouth is thrown much farther back than it would be supposing the internal processes of the maxillary bones not to exist.

You will observe, as a very interesting feature of the chelonian skull, that all the anterior facial arches, if I may so call them, are firmly fixed to the base of the skull, partly to the basilar ossification, and partly to the cartilage which is in front. There is no mobility at all about the parts of the upper jaw or of the palate; and inasmuch as these parts are firmly fixed, by means of the pterygoid, to the quadrate bone, that also is practically rendered immovable, or would be so if it were not, in addition, fixed to the sides of the skull by a large and extensive surface of union. The quadrate bone becomes very large and expanded; all the posterior part gives attachment most especially, in an indirect manner, to the tympanic membrane; but the arch which it forms is almost completely closed up by bone, so that there is only a small hole left through which the columella passes (that is, the columella of the organ of hearing), the columella being on its way to the fenestra ovalis. In consequence of the manner in which the quadrate bone has become expanded and fixed to the prootic and to the opisthotic, and other bones in the vicinity, there is a sort of chamber formed between the sides of the skull on the one hand and the tympanic membrane on the other, and these lateral boundary walls in front and behind. That chamber is the tympanum or drum of the ear, of which a more or less well-marked rudiment already exists in the frog; but in the frog it is by no means thoroughly shut off from the cavity of the mouth; so that that communication which exists in us, and which is a long narrow tube, the Eustachian tube, is in frogs a wide and patent aperture; and you will only regard the tympanum as a sort of recess, if one may so say, of the roof of the mouth. In the chelonians, on the other hand, in consequence of the large development of the bones about the

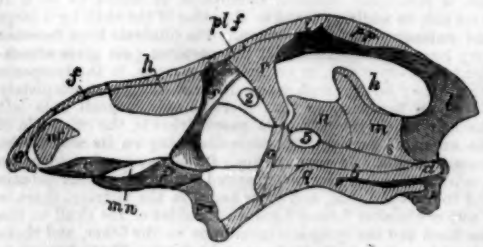
outer parts of the organ of hearing, the tympanic cavity becomes much better defined, and more constricted from the aperture, by means of which the tympanum communicates with the mouth, and this aperture now becomes a definite Eustachian tube. In the turtle, as in the lower vertebrata, there is only a single rod serving as a bone of the organ of hearing—a single rod, which is expanded at its inner extremity, and there fitted into the fenestra ovalis in the same way as the stapes is fitted in us, and which, on the other hand, is continued out as a straight rod, and, becoming expanded at the extremity, is fixed into the tympanic membrane itself, being occasionally connected indirectly with the sides of the quadrate bone as well. Then upon the upper part of the chamber of the organ of hearing you have a well-marked squamosal applied upon the outer sides of the skull, and there is in front of the organ of hearing a post-frontal, these bones taking quite the same position as they do in the fish. The hyoidean apparatus becomes much simplified in the chelonia to what we find it in frogs and perenni-branchial amphibia, consisting of a broad plate with two cornua inside; but into the details of this structure, as we have so much to do, it is not worth while now to enter.

The development of the chelonian skull is quite comparable to that of other vertebrata. There is the same sort of membranous skull formed in the first place; the same rudimentary cartilaginous skull with its two trabeculæ; and ossifications in the main take place in the corresponding bones in the same way as in the lower vertebrata.

Leaving this type of the skull, then, I may now pass on to speak of the lizard's skull, which is in principle constructed in very much the same fashion as the chelonian skull, although in its details it has an exceedingly different appearance. In the chelonian skull, particularly in that of the turtle, with which I commenced my description, not only are all the bones of the face fixed to one another, and all the different parts of the skull perfec ly immobile, but there is a sort of additional fixity given to these different bones by a very remarkable expansion of the upper part of the frontal and of the sides of the parietal bones; and that expansion extends to the squamosal, post frontal, and all these bones; the expansion from the median line extending outwards, and the expansion from the sides extending upwards and towards the median line—all these unite together, and form a kind of second arch above the top of the skull. If you take the skull of the trionyx, you observe all the bones which form the limits of the periotic capsule, the prootic, and so on, are visible at the top of the skull; but in the turtle the occipital arch has thrown out a great lateral expansion, and the other upper bones have also thrown out a lateral expansion: thus you have formed that great chamber which lies on the top of the turtle's skull, and gives it such a helmet-like appearance. In the lacertian skull everything is changed in this respect. All the parts have become singularly mobile, so that not only is the quadrate bone movable upon its articulation in most cases (I speak now of the typical lacertian skull, for there are exceptions), but even the front part of the skull is movable in most lizards from the back part in consequence of a mechanism which I will explain by-and-by.

In a vertical section of a lizard's skull (Fig. 58) you find, in

FIG. 58.



Section of lizard's skull. *a*, Basi-occipital. *b*, Basi-sphenoid; below *b* is the basi-temporal. *c*, Right vomer. *e*, Premaxillary. *f*, Nasal. *h*, Frontal. *pl f*, Parietal fontanelle. *i*, Parietal. *p p*, Process of parietal. *k*, Supra-occipital. *l*, Wing of ex-occipital. *m*, Median part of ex-occipital. 8, Situation of foramen for vagus nerve. *n*, Prootic. 5, Foramen ovale. *o*, Ali-sphenoidal "columella." *p*, Palatine. *m m*, Median nares. *p x*, Os transversum. *q*, Pterygoid. *r*, Descending plate of parietal. *s*, Jugal. *t*, Quadratum. *n r*, Turbinal. 2, Optic nerve.

the first place, that the skull is constructed upon the same plan as that of the turtle and of the pike—that is to say, that there is in the front part a laterally-compressed inter-orbital septum (Fig. 58, in front of 2), composed in great measure of cartilage or membrane, so that the front part of the cranial cavity is extremely narrow; at the back part the basi-cranial axis (*a*) is as usual; and in front of that there is a basilar ossification (below *b*) to a very considerable extent, but nothing like so much as it is in the crocodiles and chelonians. In front of that point almost the whole of the basi-cranial axis is unossified, but there are certain small ossifications placed within it, which have a very considerable interest from their correspondence with the ossifications that we find in the corresponding region in the pike, for example. If you examine the skull (Fig. 59)

FIG. 59.

Cranial axis of iguana. *a*, Basi-occipital. *b*, Basi-temporal. *c*, Basi-sphenoid. *d*, Pre-sphenoid. 2, Optic nerve.

of the iguana, for instance, you will find in front of that bone which I called the basilar bone, commonly called the basi-sphenoid, a little Y-shaped bone (Fig. 59, *c*), consisting of two little crura which lie behind the exits of the optic nerves, and of a little stem which comes down in the middle line, and abuts upon the beak like prolongation forwards of the basilar bone. Fig. 59, *a*, is the basi-occipital; *b* is the basilar bone, lodging the pituitary body, and continued from it the forward beak of the basilar bone; and *c* is the Y-shaped bone of which I spoke; the optic nerves pass out at 2. Fig. 59, *d*, is the septum, which is composed mainly of cartilage, or, indeed, hardly of cartilage, but mere membrane; you may find in front certain irregular ossifications. As this Y-shaped ossification lies immediately in front of the pituitary fossa, and behind the exit of the optic nerves, I think there can be no doubt that it represents the body of the proper basi-sphenoid—that is, corresponding with the corresponding-shaped bone in the pike, and so many other fishes; and the ossification, *d*, which is placed in front, corresponds with the imperfectly-ossified pre-sphenoid, which you may also find in many fishes. It runs in the same way under the peduncles of the olfactory nerves, and has the same relation to the optic nerves, lying, as it does, in front of them; so that I suspect the great mass of that bone, which has been called the basi-sphenoid in lizards, is merely that peculiar basilar ossification which, arising sometimes from one and sometimes from two centres, is so characteristic of the oviparous vertebrata. The continuation forward of the cranio-facial axis of the lizard presents hardly any ossifications at all—none that may be called distinct bones. The lateral walls of the skull, again, are hardly more complete. There is a distinct ex-occipital (Fig. 58, *l*) in its place, quite recognizable by all those characteristics by which we have identified the ex-occipital throughout. But then there is no ali sphenoid; at least, I do not imagine that the bone which seems to represent it is ossified from cartilage. I am not aware that there has been any demonstration at all that it is so ossified. But there is a very curious bone (Fig. 58, *o*), coming down like a little column from the parietal bone. This bone is, unfortunately, called the columella; I say unfortunately, because precisely the same anatomical term is applied to the little bone which represents the stapes, which extends from the fenestra rotunda to the tympanic membrane. That, however, is the name which it has now, and it has been supposed, and with a considerable degree of probability, that it represents the ali-sphenoid in the lizards. But it must be remembered that it differs from it in many important respects. Of anything like the orbito-sphenoid there is hardly a trace; at most, some little irregular ossifications here and there. The bones which surround the organ of hearing, however, are very well marked, and easily recognizable by the tri-radiate suture. Fig. 58, *n*, shows the bone which lodges the front part of the organ of hearing, and 5, Fig. 58, the exit of the third division of the fifth. The lower part of *k* is, of course, the epiotic; and the anterior part of *m* the opisthotic. But the lower division and the upper one are not distinct bones; the upper one is continued in the supra-occipital by a continuous ossification, whilst

the lower one is continuously ossified with the ex-occipital. So that it seems as if the capsule were formed of the prootic, the supra-occipital, and the ex-occipital.

It is singularly interesting that the observations of that great embryologist, Rathke, made many years ago upon the lacerta agilis (corresponding with those observations which he made on the snake, and to which I shall have to allude), solved the whole mystery; for he showed that in the young lizard the epiotic and the opisthotic bones, which appear to be continuous with the supra-occipital and ex-occipital, were developed from distinct ossifications, but that in the progress of development, instead of their coalescing with the prootic (Fig. 58, *a*), the one, which is the opisthotic, having all the relations of that bone, coalesces with the ex-occipital, and the other (the epiotic) coalesces with the supra-occipital. It is curious to notice in the vertebrate series this distribution of the primitive elements of the periotic capsule in different divisions. There is no essential change, so far as one can make out, in the whole series. The only one which we are pretty safe in regarding as a distinct bone is the prootic; the others have a remarkable tendency to coalesce either with the supra-occipital or the ex-occipital; so that in the adult condition, unless you take careful note of the developmental stages, you become perfectly at a loss in the interpretation of the parts.

The roof bones of the skull are very curious. The supra-occipital (*k*) is in its ordinary place; but in a great many lizards there is a mere membranous fontanelle, a mere membranous condition of the roof between the supra-occipitals and the parietals (*i*), so that there is a kind of hinge there, and it is practicable in a fresh skull to move the snout together with the frontal and parietal bones upon the hinder part of the skull. This is a kind of cranial joint which, so far as I know, is quite unknown in any other animal. The pterygoid bones (*q*) are articulated movably with the basilar bones, and there is nothing but flexible cartilage in the interval between the basilar bone and the front part of the skull; and inasmuch as there is nothing but flexible membrane between the parietal and supra-occipital, it becomes possible that there should be this curious hinge like movement of the front part upon the back part. Not that such movement can ever occur during life; there is no mechanism to produce it, nor would there be any particular utility in producing it; still it is practicable in consequence of the anatomical arrangement of the parts. Then the parietal, which usually has a hole in the middle, covered over by skin and by the dura mater, is produced to long horns (*p p*); and the prootic element, which lies below it, is also produced to two long horns, and these two come together so as to constitute a kind of buttress, the upper buttress being formed mainly by the parietal, and the lower buttress being formed partly by the ex-occipital, or it may be to some extent by the opisthotic, because the parts are completely ossified together in the adult state that you cannot distinguish them; but at any rate (*l*, Fig 58) is this great side pillar, formed in front by the prootic, and behind by the ex-occipital and opisthotic; and to this comes the parietal: thus there is a kind of lateral pillar formed, upon which the upper end of the quadrate bone plays, and plays movably. In the recent state there is a perfect articulation between the two. Very commonly we find that, in lizards, between this lateral pillar of the skull and the quadrate bone there is a little separate ossification, which has received a great many names, and the nature of which is, I think, still somewhat dubious. Then these lateral pillars are connected with the front part of the skull by a prolongation backwards of the squamosal (outside *l*, Fig. 58); that is connected with the post-frontal, and that again with the pre-frontals. It is in consequence of this elongation of the bone, and the leaving of membranous spaces between them in this fashion, that the upper part of the skull of the lizard presents this curiously complex arrangement of arches; there being, you will understand, no difference of principle in its construction from that which we find in the trionyx or any of the common chelonians. With respect to the inferior arches of the skull, it commonly happens in lacertians that the pre-maxilla (*c*) is reasonably well developed and fixed to the skull, and that the maxilla is also well developed, and bears teeth, and is fixed to the skull. The plates which represent the vomer (*c*) occupy their ordinary place in the middle line, and are commonly double, and of course they have the nostrils (Fig. 58, *m n*) between themselves and the palatine bone (*p*). But the arrangement of these nostrils is exceedingly interesting. At *c*, Fig. 58, are the vomerine plates in the middle line, and at *e* is the pre-maxilla with its teeth. Then the palatine bones come up at *p*, and they articulate upon the one side with the vomers and with the part of the ethmoidal apparatus which lies close to them, and then they send out a transverse plate, joined to the maxilla proper. Then there is an aperture formed which in most lizards communicates directly (without any narrowing in consequence of the throwing in of the processes of the jaws) with the cavity of the mouth. It is, in truth, a median nostril, having precisely the same character as we should find in the batrachian. And you will observe that, inasmuch as the posterior process of the palatine goes back to articulate with the pterygoid, we have exactly the same arrangement (as I had occasion to point out to you in an early lecture) as we find in the human skull. If you cut away those accessory parts formed by the prolongation downwards of the maxilla and palatine bones, and there meeting together in the middle line, those parts of the palatine you find upon each side, with the vomer in the middle line, having the same connexion as in the lizard, and extending outwards and forwards so as to leave the apertures of the median nostrils, the correspondence of the primitive arrangement in the man and in the lizard is quite complete; but in man, and as we shall find in several of the oviparous vetebrata, the maxillary bones and palatine bones grow downwards, and then throw in secondary plates, which, hiding the median, give rise to the posterior nares. There are some few lizards in which there is an approximation to this structure. Then the pterygoid bones are continued backwards, and abut against the quadrate bones, with which they are commonly movably articulated; and the quadrate bones are capable of making a certain amount of play upon their articulation. With them the lower jaw is articulated, having its articular element as much developed from the upper extremity of Meckel's cartilage, and having the rest of its parts formed as membrane ossifications, those being four or five on each side, developed as separate ossifications in membrane immediately surrounding Meckel's cartilage. In the hyoidean apparatus there is still a considerable amount of complexity, there being usually in lizards at least two long, well-developed lateral cornua extending up the sides of the neck, and a more or less complex central portion or body.

(To be concluded.)

Lectures

ON

MOLECULAR PHYSIOLOGY, PATHOLOGY, AND THERAPEUTICS,

AND THEIR

APPLICATION TO THE TREATMENT OF DISEASE.

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LECTURE IX.

TUBERCULOSIS.

I PROPOSE to-day to speak of that very common and important morbid condition denominated Struma, Scrofula, and, in recent times, Tuberculosis—that is to say, the formation of tubercle.

The term "tubercle" literally implies a little swelling, and in that sense still serves to distinguish a class of skin diseases under the name of "tubercula." Its unfortunate application to the rounded and other masses so frequently found in the lungs, bones, and other textures, renders it imperative upon us to define what we now understand by it. At present, therefore, tubercle may be regarded as an exudation possessing deficient vitality, sometimes grey, but more frequently of a yellowish colour, varying in size, form, and consistence, essentially composed of molecules and irregularly formed nuclei.

Forms of tubercle.—These may be distinguished as—1st, miliary tubercle, existing in small grains like millet-seeds, and which may be yellow or grey, hard or soft; 2nd, infiltrated tubercle, existing in masses or patches more or less extensive; 3rd, encysted tubercle—that is, masses of tubercle surrounded by a fibrous cyst; 4th, cretaceous and calcareous tubercle—

that is, tubercle loaded with mineral matter, sometimes breaking down under the finger, and at others of stony hardness. In this way tubercle not only varies in form, but in extent, colour, and consistence. It may be diffluent, soft, cheesy, waxy, indurated, chalky, and calcareous.

Minute structure of tubercle.—A small portion squeezed between glasses, and examined under the microscope, presents a number of irregularly shaped bodies, approaching a round, oval, or triangular form, and varying in their longest diameters from the $\frac{1}{3000}$ to $\frac{1}{1200}$ of an inch. These bodies contain from one to seven granules, are unaffected by water, but rendered transparent by acetic acid. They are what have been called tubercle corpuscles. They are always mingled with a multitude of molecules and granules, which are more numerous the softer the tubercle. Occasionally, when softened, tubercle resembles pus, constituting scrofulous purulent matter, we find the corpuscles more rounded, and approaching the character of pus cells. They do not always, however, on the addition of acetic acid, exhibit the peculiar granular nuclei of pus cells.

FIG. 71. FIG. 72. FIG. 73.

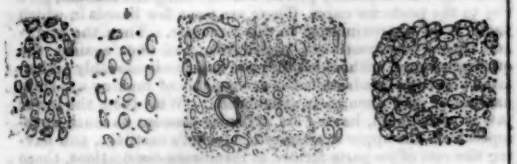
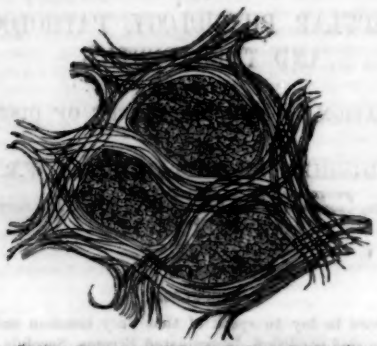


Fig. 71.—Tubercle corpuscles in a miliary tubercle from the lung. *b*, After the addition of acetic acid.
Fig. 72.—Structure of a tubercular mass in the cerebellum, composed of molecules and tubercle corpuscles, with a few fragments of nerve tubes.
Fig. 73.—Structure of a tubercular mass in the mesenteric gland. 250 diameters.

The grey granulations described by Bayle may be seen, on careful management of the light, and after the addition of acetic acid, to contain similar bodies to those described as tubercle corpuscles, being closely aggregated together, having indistinct edges, and containing few granules.

FIG. 74.



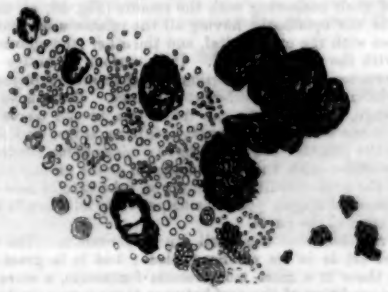
Section of a grey granulation in the lung, showing the pulmonary vesicles filled with tubercle corpuscles.

Cretaceous and calcareous tubercles, on the other hand, contain very few corpuscles, their substance being principally made up of numerous irregular masses of phosphate of lime, and a greater or less number of mineral molecules and crystals of cholestrine.

Tubercle corpuscles may be associated with pus and granule cells, as well as with cells peculiar to glandular organs or mucous surfaces in various stages of fatty transformation and disintegration. With all those they have frequently been confounded.

Everything that I have seen of tubercle tends to convince me that it consists of an exudation which has little tendency to pass into cell forms. The original albuminous molecular matter melts into nuclei, which constitute the tubercle corpuscles, and are developed no further. It has been regarded by some pathologists as a breaking-down of pre-existing textures, and by Virchow as forming in the interior of connective tissue corpuscles. The former view is based upon the circumstance that cells in the act of breaking down may be observed in a certain stage to present irregularly shaped nuclei with numerous molecules, which closely resemble those found in tubercle, as in chronic pneumonia and in the reticulum of cancer. I feel persuaded, however, that tubercle is a histogenetic, and not a histolytic process, and that as such it may easily be demonstrated in every organ which it attacks. That it is caused by a pre-existing growth in the so-called connective tissue corpuscles, is open to the same objections that I made to the supposed origin of pus in the same bodies. In no case can it be demonstrated.

FIG. 75.



Structure of a calcareous pulmonary tubercle. (Radclyffe Hall.) 250 diameters.

Chemical composition of tubercle.—Tubercle has been analyzed by numerous chemists. The general results are as follows:—1st. That tubercle consists of an animal matter, mixed with certain earthy salts. 2nd. That the relative proportion of these varies in different specimens of tubercle. That animal matter is most abundant in recent and earthy salts in chronic tubercle. 3rd. That the animal matter consists almost wholly of albumen, mixed with a minute quantity of fibrin and fat. 4th. That the earthy salts are principally composed of the insoluble phosphate and carbonate of lime, with a small portion of the soluble salts of soda. 5th. That very little difference in ultimate composition has been detected between recent tubercle and other albuminous compounds.

Pathology of tubercle.—In endeavouring to determine the nature of tubercle, we must remember that it occurs in young persons in whom the nutritive functions are deficient in energy, whether from poverty and incapacity of obtaining food, from deficient stamina, or from causes of whatever kind which induce exhaustion. Hence its frequency among the ill-fed poor, in orphan and foundling institutions, among badly-nursed children or weak and dyspeptic young persons, and after acute inflammations, whooping-cough, eruptive fevers, and other disorders that weaken the body. When, under such circumstances, exudation occurs in one or more textures, it does not undergo those changes we observe following inflammation in healthy persons. The vital changes are slow, and easily arrested. Instead of cells and perfect textures being produced, the efforts at vital transformations are abortive. The whole remains molecular and granular, or at most ill-formed nuclei are produced, which have received the name of tubercle corpuscles.

It is rare, however, that this weakness of the constitution acts uniformly at all times and in all textures. Hence it may frequently be observed that tubercle is more or less associated with pus and granule cells, or fibrous and other growths; with the exception of cancer, with which it is rarely combined.

I regard tubercle, therefore, as an exudation, which may be poured out into all vascular textures in the same manner and by the same mechanism as occurs in inflammation, only from deficiency of vital power it is incapable of undergoing the same transformations, and exhibits low and abortive attempts at organization, and more frequently, as a result, disintegration and ulceration. For the same reason we observe that whenever an undoubted inflammation becomes chronic with weakness, the symptoms and general phenomena become identical with those of tuberculosis. Hence there is little difference between a chronic pneumonia of the apex of a lung and a phthisis; the one, indeed, passing into the other.

When we endeavour to discover THE ORIGIN of the weakness producing this effect on the exudation, we must ascribe it to imperfect nutrition; indeed, it is impossible for any observant practitioner to avoid noticing throughout the whole course of the disease the derangement that occurs in the digestive system. All writers refer to the deficiency and irregularity of the appetite, and the functions of the whole alimentary canal will be

found from first to last in an abnormal condition: the tongue is either furred and furrowed, or glazed and unusually red; the teeth are carious; the stomach capricious—sometimes rejecting food, at others retaining it an unusual time, with accumulation of flatus. There is a general indisposition to eat fat or fatty substances; and the appetite is feeble, absent, or, in rare cases, voracious. In the former case there is thirst and eructation of acid matters into the mouth; flatulence and tympanitis of the bowels are frequently complained of; the alvine discharges and egesta are as irregular as the food and ingesta. Sometimes there is constipation, at others diarrhœa. The stools are only slightly tinged with bile, and in children often consist of white glairy matter, like white of egg. It may also be invariably observed, that when by proper regulation of the diet, of exercise, or other circumstances which regulate the nutritive functions, the alimentary canal performs its duty, the health improves, and the tubercular formations diminish.

These, indeed, according to their excess or progress in particular organs, communicate to the disease more or less of a local character. In systematic works they have been described at length as separate diseases, although, in truth, they are only manifestations of one disease.

After a time the continuance or violence of the local disease reacts upon the constitution, and a state called hectic fever is established, the which, inducing exhausting diaphoresis and emaciation, ultimately destroys the patient.

Natural progress of tuberculosis.—In tracing, therefore, the natural progress of tuberculosis, we observe it to commence in debility caused by impairment of nutrition. This leads to local congestions and exudations. The latter remain abortive, and consist of molecules, granules, and imperfect nuclei, which soften and cause ulceration, with more or less disorganization. The great contribution of M. Louis to the pathology of this subject was the establishment of a law, that whenever tubercle occurred in the body it also existed in the lungs, and whenever it occurred in the lungs it appeared first at the apex. This law, though now known to be subject to several exceptions, is still so generally correct as to be of the utmost service in diagnosis. Now, in the lungs, it was long supposed, and the opinion is still very general, that tubercle almost always proceeded onwards to a fatal termination; yet so far is this from being the fact that it can easily be shown that tubercle is arrested spontaneously in one-third of all the persons in whom it occurs. Nothing is more common in examining dead bodies than to meet with cretaceous and calcareous concretions at the apices of the lungs more or less associated with cicatrices. Of seventy-three bodies which I examined consecutively some years ago in the Royal Infirmary, I found these lesions in twenty-eight. Of these, puckerings existed with induration alone in twelve, with cretaceous or calcareous concretions in sixteen. Since then I have examined many hundred lungs at the inspections in the Infirmary, and am satisfied that these proportions exist pretty constantly. At the Salpêtrière Hospital in Paris, Roger found them in fifty-one bodies out of a hundred; at the Bicêtre Hospital, in the same city, Boudet found them in 116 out of 135 bodies. Both these institutions are establishments for persons above seventy years of age.

These lesions are so frequent, therefore, that it is important to determine whether they are really proofs of arrested tubercle. This seems to be established by the following facts:—

1. A form of indurated tubercle is frequently met with, gritty to the feel, which, on being dried, closely resembles cretaceous concretions. 2. These concretions are found exactly in the same situation as tubercular deposits are. Thus they are most common in the lungs, and at their apices. 3. When the lung is the seat of tubercular infiltration throughout, whilst recent tubercle occupies the inferior portion, and older tubercle and perhaps caverns the superior, the cretaceous and calcareous concretions will be found at the apex. 4. A comparison of the opposite lungs will frequently show, that whilst on one side there is firm encysted tubercle, partly transformed into cretaceous matter, on the other the transformation is perfect, and has occasionally even passed into a substance of stony hardness. 5. The puckerings found without these concretions exactly resemble those in which they exist. Moreover, whilst puckering with grey induration may be found at the apex of one lung, a puckering surrounding a concretion may be found in the apex of the other. 6. The seat of cicatrices admit of the same exceptions as the seat of tubercles, and in about the same proportion. There can be no question, therefore, that these cicatrices and concretions for the most part indicate the arrestment, disintegration, and transformation of pre-existing tubercular exudations into the lungs.

The arrestment of tubercle in the lung is not confined, however, to its early stage. It may be stopped at any period, and numerous cases are now known where even vast tubercular caverns have healed and cicatrized. I here show you a series of preparations, which must convince the most sceptical of the truth of this statement.*

Treatment.—It follows, therefore, that if we can succeed in supporting the nutritive functions, there is no reason why tubercle once formed should not be gradually absorbed, and a tendency to subsequent deposits completely checked. Formerly this was rarely accomplished, in consequence of the idea that phthisis pulmonalis ought to be treated by paying attention especially to the lungs and respiration. Hence cough mixtures, sedatives, a warm atmosphere, tar vapour, and other substances to influence the local lesion. Other symptoms had their special treatment, such as sulphuric acid to relieve sweating, acetate of lead and opium to check hæmoptysis, tonics to give strength, astringents to check diarrhœa, and so on; while so far from any vigorous effort being made to improve nutrition, the diet was kept low, consisting of farinaceous substances, or at most milk; and to avoid irritation, the patients were confined to bed or their rooms, which were kept at an equable temperature.

Our present knowledge has led to a complete revolution in our practice. Thus, moderate exercise to stimulate respiration, cold sponging, nutritious diet, and a bracing system have been found more beneficial; at the same time avoiding anodynes and cough mixtures, which, by diminishing the appetite and inducing weakness, interfere with nutrition. Indeed it has been proved that the best method of lessening cough, expectoration, and sweating are the means which produce increase of general strength; so that if we can carry out the general indication, the local symptoms may be safely left to themselves.

In doing this, we have now the advantage of possessing a remedy which in cases of tuberculosis is of the highest nutritive importance, as it gives to the system that fatty element in which it is so defective, and in a form that is more easily assimilated, and more capable of adding to the molecular element of the body than any other. I allude to COD LIVER OIL.

And now, gentlemen, you cannot fail to perceive how the molecular doctrine of organization and of growth not only explains the known facts in physiology and pathology, but constitutes the basis for a true therapeutics. Fatty particles, as we have seen, form the molecular fluid of chyle; while out of chyle, blood, and through it all the tissues, are formed. Impairment of digestion in scrofula and tuberculosis renders chylification imperfect; the fatty constituents of the food are not separated from it and assimilated; the blood consequently abounds in the albuminous elements, and when exuded forms, as we have seen, tubercle. To induce health, it is necessary to restore the nutritive elements which are diminished, and this is done directly by adding a pure animal oil to the food. While an inflammatory exudation in previously healthy persons should be treated by supporting the vital powers generally, so as to permit its molecules going through the transformations necessary for their growth and elimination; in tuberculosis we add the constituent of food necessary for the formation of the molecules themselves. By so doing, we form good chyle and blood; we restore the balance of nutrition which has been disturbed; respiration is again active in the excretion of carbonic acid gas; the tissues once more attract from the blood the elements so necessary for their sustenance. The entire economy is renovated; so that while the histogenetic processes are revived, the histolytic changes in the tubercle itself also are stimulated, and the whole disappears. When, in 1841, I first announced the virtues of cod-liver oil as an analeptic or nutrient in this class of cases,† so little was the substance known that linseed oil was furnished to the Royal Infirmary of this city instead of it, when I induced Dr. Spittal to try it in his wards. At present, I need scarcely say, whole fleets are engaged in transporting the oil from the extensive fisheries where it is manufactured for medicinal purposes; and its beneficial results are universally recognised.

In 1852 Dr. Wood, of Philadelphia, remarks of it in his Practice of Physic, (see vol. ii., p. 95, note,) that in Philadelphia during the ten years from 1840 to 1849 inclusive, the average proportion of mortality from phthisis was 1 in about 6·76 from all causes, or 14·8 per cent., and the same average existed in previous years. Cod-liver oil was then generally used in its treatment, and the mortality sank in this disease

* See the author's work, "The Pathology and Treatment of Pulmonary Consumption," 2nd edition, figs. 21 to 26.

† On the Oleum Jecoris Aselli: Edinburgh, 1841. See also the same work with Appendix by the Author, 1848.

during 1850-51 to 1 in 8·33, or about 12 per cent., and in 1851 it was only 11·86 per cent.

In 1862 Dr. C. J. B. Williams, in one of the Lumleian Lectures delivered to the London College of Physicians, observes, that the experience of Louis and Laennec gave an average duration of two years' life in phthisis after it was decidedly developed, but that since cod-liver oil was introduced, he infers, from 7000 cases, that the average duration of life has been four years—that is, doubled.

My own conviction is, that innumerable cases which formerly would have died rapidly, now rally, live for years, and many of them ultimately recover. The hopelessness which used to seize upon many consumptive persons and on their friends is also now removed, and the resolution to combat the disease by appropriate diet, exercise, and other hygienic means, has added further success to our treatment.

I venture then to say, that in the same manner that in recent times we have diminished the mortality in cases of acute inflammation, so we have diminished the mortality and increased the duration of life in cases of tuberculosis, and more especially in that most fatal form of it—phthisis pulmonalis. In the one disease as in the other, this improvement can only justly be ascribed to the advance of physiology and pathology; to our superior knowledge of the nature of the disease, and, as a consequence, to our treatment of it on more scientific and successful principles.

NOTE IN REPLY TO DR. HICKS.

In the account which Dr. Hicks gives of his views as to the origin of vibriones, in THE LANCET of May 23rd, he overlooks, as it appears to me, a very important point,—namely, the different periods of time when a cell or a vibrio grows and generates. After quoting my remark, "If the molecules divide, how is it that filaments form at all?" he observes, "If both these properties be not granted to vegetable cells, and to these vibriones also, then of course I can proceed no further. We disagree completely on the premises, and our arguments would not bear upon each other." In truth, this is the question at issue between us, which, however, I will endeavour to show may yet admit of a correct explanation, on the basis of the molecular theory of organization.

When a plant consists of a single structural element, such as a cell or a tube, it will I think be admitted by Dr. Hicks that growth in the sense of increased bulk, and growth in the sense of multiplication of parts by division, do not proceed at the same moment of time. Every plant and animal follows in this respect the same law. Nutrition is carried on up to a certain point of maturity, and then, and not till then, does generation, or the separation of parts to form the new creature, take place. When plants and animals are complex in their structure, one organ or segment may be growing while another is disintegrating. But in individual organs there is a period for growth and reparation, and a period for division or separation.

Now in watching the development of vibriones, we first see the formation of a film composed of minute molecules. These gradually enlarge, and, I think, unite to form the longer vibratile bodies. After a time these may divide and break up, but this is the last and not the first stage of the process. Hence, it seems to me, I am correct in thinking that if at their first formation they possess the property of dividing, they cannot also at the same moment possess the property of elongating and forming filaments. The one function is subversive of the other. While, then, I agree with Dr. Hicks in attributing to a cell and to a vibrio the property both of growth and division, these two functions must be exercised at different periods of time; so that I still repeat, in reference to the early stage of formation, If the molecules divide, how is it that filaments form at all?

Should it be maintained that the different molecules possess different functions—that among the millions of those bodies that we observe in the field of the microscope at once, and which at that early period are all globular and resemble each other, some are dividing while others are developing into plants,—then it appears to me that neither observation nor correct reasoning supports such an hypothesis. A mass of vibrionic molecules is not a compound organism; it is a mere aggregation of similar simple elements. Each of these in passing through certain phases of development may be arrested, or reach maturity at various periods; so that we frequently see different forms present at one time. But that the same forms and the same stages of growth should exhibit directly opposite functions is surely not in accordance with physiological knowledge.

It is unnecessary to enter into the discussion as to the supposed origin of the molecules from pre-existing cells. It is for those who maintain such a theory to find those cells, and show how such masses of vibriones can be derived from them. For my own part, I have never observed in the infusions of flesh in which vibriones are readily formed any trace of cells whatsoever. I cannot therefore discover any ground for supposing such to be their origin, nor any reason for maintaining that their number is dependent on the constant division and multiplication of the primary molecules formed.

I shall be delighted if Dr. Hicks succeeds in establishing the truth of his opinion as to the contractility of the fibres of the unimpregnated uterus. All I can say on that topic is, that perhaps he will agree with me in thinking that stronger facts will be required in its support than those he has yet brought forward.

REPORT OF THE TRIAL OF

SARRACENIA PURPUREA, OR PITCHER PLANT, IN SMALL-POX.

BY J. F. MARSON, ESQ., F.R.C.S.,
SURGEON TO THE SMALL-POX AND VACCINATION HOSPITAL, LONDON.

A COMMUNICATION, seemingly of great promise, from Mr. Chalmers Miles, of the Royal Artillery, was read some time since at a meeting of the Epidemiological Society on the use of Sarracenia purpurea in Small-pox. The specimens of the plant which accompanied the paper were submitted to me for trial at the Small-pox Hospital, the root being the part of the plant particularly recommended for use.

The public generally, and the profession, ought to feel very much obliged to Mr. Miles for the great trouble he took in bringing the subject before them; and although I shall not, unfortunately, be able to report favourably on the use of this plant in small-pox, I feel that Mr. Miles is just as deserving of our thanks for the great trouble he has taken, and for the expense I have no doubt he has been put to, in gaining the particulars stated in the communication in question, as if the remedy had succeeded ever so well.

The root was said to be the part of the plant that, when made into a decoction, afforded the best form of giving the medicine. There was about enough for three persons only in the canister transmitted by Mr. Miles to this country from Nova Scotia, and given to me. I had therefore to make up my mind what were the most desirable cases of small-pox in which to test its efficacy. I fixed on, first, a malignant case—one of those attended with hæmorrhage from the mucous surfaces; second, a severely confluent case, such as my experience has taught me usually dies, owing to the great amount of eruption; and, third, if possible, a corymbose case—one of those rather rare and nearly always fatal cases of small-pox.

To give the remedy a fair trial, it was necessary to have the case on which to try it in the early stage of the disease, during the first few days of eruption. There was but little small-pox in London at the time the plant was first submitted to me for trial, and, although I was on the watch for such cases as I have mentioned, several months elapsed before I had a suitable opportunity of trying the efficacy of the alleged remedy. Of course, I wished to meet with the cases I had fixed on free from any suspicion of their having been vaccinated. This was absolutely necessary, because vaccination has a great influence in modifying what may be called the normal course of small-pox. After several disappointments, unnecessary further to detail, small-pox became epidemic in the autumn of last year, and the opportunities of trying the sarracenia became numerous. About the same time Mr. Miles returned to this country, and he was good enough to write to me and place at my disposal any amount of the sarracenia I might require, to be forwarded through the agency of Messrs. Savory and Moore.

I tried the decoction of sarracenia made from the root by simmering an ounce in a pint and a half of water for four hours, until reduced to a pint; and a quarter part was usually given for a dose twice a day, for two days or more. I also gave in some cases the liquor sarracenia supplied by the same firm. In all fifteen patients have been treated with the sarracenia; selected for their severity, as I have described—such cases as I believed would not get well under ordinary treatment. They have all died.

The cases were selected on admission in the early stage of

the disease on account of the severe symptoms manifested, and because I felt it was of no use to try the efficacy of the sarracenia on mild cases or vaccinated cases, which I knew very well would recover without anything being done for them beyond the exhibition of ordinary care, the giving of salines if required, occasional aperients, suitable diet, &c.

I cannot say that the sarracenia had any effect whatever. It did not save life; it did not modify in the least the eruption of small pox; it did not influence any of the secretions; it did not increase the secretion of urine; in only one instance did it seem to act on the bowels, and this seeming effect might easily have been from other causes. The particulars of the fifteen cases taken daily at the time of the trial of the sarracenia are appended to the report.

Two cases have been admitted into the hospital that had taken a decoction of the leaves and stems of the sarracenia before admission. The first, a very mild case, having four vaccine cicatrices, was highly modified, I believe, by the vaccination. The second case was confluent, was without vaccination, not severely confluent, and was wholly unmodified. They both recovered. The recovery might, perhaps, by some be attributed to the sarracenia; but I believe it had nothing to do with it. The vaccinated case was, as I have said, very mild, due, I believe, to the vaccination. As to the second case, about half our confluent unvaccinated cases recover with ordinary treatment.

In conclusion, I may state, that had I found the sarracenia do any good, I should have taken an earlier opportunity of reporting the fact to the profession. As it failed I thought it well to defer this report that others might, without bias, try the plant during the present epidemic of small-pox, and favour us with their opinion of its reputed power of controlling the course of the disease in its severe forms.

APPENDIX.

Cases of Small pox treated with Sarracenia (1862).

1. Margaret C——, eighteen years of age; small-pox, confluent, with menorrhagia; unvaccinated. Was admitted into the Small-pox Hospital Oct. 8th, 1862; fourth day of illness, second of eruption. Took a quarter of a pint of the decoction of sarracenia at one o'clock at night Oct. 8th, and a quarter of a pint, in two doses, the following day. She would not afterwards take any more, and died Oct. 12th.

2. Mary Ann B——, eleven years; small-pox, malignant; unvaccinated. Admitted Oct. 22nd; fourth day of illness, second of eruption. Took two ounces of the decoction of sarracenia, made from that sent by Messrs. Butler and M'Culloch, every six hours until the pint was consumed, beginning on the day of admission. Died Oct. 25th, in the evening, seventh day of illness, fifth of eruption.

3. John M——, eleven years; small-pox, confluent; unvaccinated. Admitted Oct. 22nd; fifth day of illness, second of eruption. Took the same evening two ounces of the decoction of sarracenia, (Butler and M'Culloch,) and continued it every six hours until the pint was consumed. Died Oct. 28th, eleventh day of illness, eighth of eruption.

4. Elias H. F——, forty-eight years, a machinist from Massachusetts; small-pox, confluent; unvaccinated. Admitted Nov. 6th; eighth day of illness, fifth of eruption. Took the decoction of sarracenia—that sent by Mr. Miles—in quarter-pint doses, beginning the day of admission, twice the following day, and one dose the succeeding day. Died Nov. 13th, fifteenth day of illness, and twelfth of eruption.

5. John H——. eighteen years, baker; small-pox, confluent; unvaccinated. Admitted Nov. 18th; fifth day of illness, second of eruption. Began the decoction of sarracenia the following day; took two quarter-pints one day, and two quarter-pints the following day. Died Nov. 25th, twelfth day of illness, ninth of eruption.

6. Geo. D——, twenty-five years, labourer; small-pox, confluent; unvaccinated. Admitted Dec. 2nd; fifth day of illness, third of eruption. Began the decoction of sarracenia same day; took one quarter-pint dose, two doses the following day, and one the next. Died Dec. 10th, thirteenth day of illness, eleventh of eruption.

7. Wm. B——, seventeen, baker; small-pox, confluent; unvaccinated. Admitted Dec. 3rd; fifth day of illness, second of eruption. Began the decoction of sarracenia next day; took two quarter-pint doses, and the remainder the following day. Died Dec. 20th, twenty-second day of illness, and nineteenth of eruption.

8. Charles B——, nineteen, footman; small-pox, confluent; unvaccinated. Admitted Dec. 11th; fourth day of illness, second of eruption. Began the decoction of sarracenia Dec. 12th, and took the pint on that and following day; continued it through another pint, and died Dec. 21st, fourteenth day of illness, and twelfth of eruption.

9. John J——, twenty-five years, draper's assistant; small-pox, confluent; vaccinated in South Wales in infancy; no cicatrix. Admitted Dec. 11th; seventh day of illness, fifth of eruption. Began the decoction of sarracenia the following day; took the pint during the two days, Dec. 12th and 13th, and continued it through another pint. Died Dec. 15th, eleventh day of illness, ninth of eruption.

10. John Z ——, thirty-three, confectioner; small-pox, confluent; vaccinated near Como; one indifferent cicatrix. Admitted Dec. 11th, second day of eruption. Began the decoction of sarracenia Dec. 14th, and continued it to a double dose, two pints. Died Dec. 18th, eleventh day of illness, ninth of eruption.

11. James H——, twenty-one, labourer; small-pox, confluent; unvaccinated. Admitted Dec. 19th; sixth day of illness, fourth of eruption. Began decoction of sarracenia same day; died Dec. 28th, fifteenth day of illness, thirteenth of eruption.

12. Thos. U. J——, twenty-two, draper's assistant; small-pox, confluent; unvaccinated (cut twice for cow-pox in Essex without effect). Admitted Jan. 19th, 1863; eighth day of illness, sixth of eruption. Began, on the day of admission, one drachm of liquor sarracenie every four or five hours—one drachm being stated to be a full dose; took three bottles, in all an ounce and a half, of the liquor sarracenie; no effect. Died Jan. 24th, thirteenth day of illness, eleventh of eruption.

13. Ann O——, thirty, barmaid; small-pox, confluent, hæmorrhagic; vaccinated at Lymington, two indifferent cicatrices. Admitted Jan. 24th; fifth day of illness, third of eruption. Began the following day with one drachm of liquor sarracenie every four or five hours; took an ounce and a half of the liquor; no effect. Died Jan. 28th, being the ninth day of illness, and seventh of eruption.

14. Thos. C——, thirty-five, stone sawyer; small pox, confluent; unvaccinated. Admitted Jan. 31st, 1863; eighth day of illness, sixth of eruption. Began with the liquor sarracenie on the day of admission; one drachm for a dose every five or six hours; took six drachms. Died Feb. 5th.

15. James U——, thirty-nine, labourer; small-pox, confluent; unvaccinated. Admitted Jan. 31st; sixth day of illness, fourth of eruption. Began liquor sarracenie, same day; took six drachms. Died Feb. 5th.

Note.—The patients in Cases 2 and 3 only took the decoction of sarracenia supplied by Messrs. Butler and M'Culloch—a mixture of root, stalkes, and leaves. All the rest of the cases took the sarracenia first sent by Mr. Miles, or that supplied at his request by Messrs. Savory and Moore.

SEVERE CASE OF POISONING OF A GIRL, AGED TWELVE YEARS, BY THREE-QUARTERS OF AN OUNCE OF CHLOROFORMIC ANODYNE.

COLD AFFUSION TO THE HEAD; ULTIMATE RECOVERY AFTER NEARLY FIFTY-FOUR HOURS' NARCOTISM.

BY GEORGE HARLEY, M.D.,

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THE following case possesses several points of interest:—1st. The novelty of the poison. 2nd. The peculiarity of its symptoms. 3rd. The recovery after so large a dose. 4th. The mode of treatment.

On January 10th, 1862, at eleven o'clock A.M., Mary Anne M'G—— had given to her by mistake for a black draught, six drachms of a new remedy called chloroformic anodyne. She immediately felt sick, and vomited. Before ten minutes had elapsed from the time she took the medicine stupor supervened, and so suddenly indeed, that her head dropped into the basin into which she was vomiting. Mr. Kitelee was at once sent for, and on his arrival he found the patient perfectly insensible, the pupils contracted, the face livid, and the breathing stertorous. With the aid of Mr. Simpson (who was also called to the case) he applied the stomach-pump, and ejected the remainder of the poison about two hours after it had been swallowed. As, notwithstanding the treatment, the patient became worse, and appeared to be sinking, Mr. Kitelee requested me to meet him in

consultation. On my arrival at about two o'clock, I found, in addition to the symptoms already described, that the pulse was no longer perceptible at the wrists, the patient's face was perfectly livid, and the respirations were reduced to six in the minute. The surface of the body was also beginning to feel cold. Artificial respiration was at once commenced by interrupted pressure on the thorax. A pint of hot coffee, containing three drachms of spirit of nitric ether, was injected into the stomach. In about fifteen minutes the pulse became perceptible at the wrists, and the breathing increased to ten respirations in the minute. Artificial respiration was now discontinued, and a constant stream of cold water applied to the head. The effect of the latter was almost magical. The pulse got quicker and stronger; the respirations regular, and almost natural as regards number (sixteen to eighteen per minute). In twenty-five minutes after commencing the cold douche the girl's nose burst out bleeding, and immediately afterwards she began rubbing her face with her hand, but in all other respects she still appeared insensible. The cold affusion to the head was now discontinued, but in three or four minutes it had to be recommenced, as the patient had again become comatose and motionless. The reapplication of the water soon restored the power of moving not only the arms, but also the legs, and she began making efforts to avoid the water falling on her head, as if it were painful to her. The coffee and spirit of nitric ether were repeated. After two hours' application of the douche the patient had so far recovered as to be able to reply to questions like a half waking person, or, perhaps, more properly speaking, like a drunken man.

At six P.M., seven hours after the administration of the drug, the pupils were a little less contracted, the pulse about 70, and the girl was considered out of danger. At nine P.M. she had a relapse of insensibility, and the douche had again to be applied, with slight interruptions, for nearly forty minutes. During the night she was occasionally shaken, when her sleep appeared to be too profound, and hot bottles and friction had frequently to be resorted to in consequence of the reduced temperature of the body.

On the following day I found the patient listless and drowsy. Her mother stated that she had got up for a minute, but was obliged to be immediately put to bed again as she fainted. This occurred on one or two occasions, and, according to the mother's account, the girl had even fainted with her head upon the pillow. The pupils were still very much contracted and quite insensible to light; pulse 104. She answered questions, but only by a yes or no. Her breath smelt strongly of the poison.

The patient remained more or less under the influence of the drug for fifty four hours after its administration, but at the end of that time she was able to get up and walk across the room. From this time her recovery, Mr. Kitelee informs me, was uninterrupted, except that she suffered for about ten days from a slight attack of bronchitis, probably induced by the application of the cold water.

The chief ingredients of chloroformic anodyne are, I believe, simply a strong solution of opium, some chloroform, and a few drops of hydrocyanic acid. The prussic acid odour was quite perceptible in the liquid ejected from the patient's stomach.

In combining the spirit of nitric ether with the coffee a double advantage was gained—first, it acted as a stimulant; and secondly, as a diuretic, and thereby materially assisted in the elimination of the poison; but to the application of the cold affusion to the head the patient's recovery was, without doubt, in a great measure due.

Harley-street, June, 1863.

ON THE

TREATMENT OF STRABISMUS

AT THE

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

By GEORGE LAWSON, Esq., F.R.C.S.,

ASSISTANT-SURGEON, ROYAL LONDON OPHTHALMIC HOSPITAL, AND THE MIDDLESEX HOSPITAL.

MUCH has lately been said and written on the treatment of strabismus, and different surgeons have laid claim to special operations for the remedy of this defect, urging that the method they suggest does away with many of the objections which are attributed to the subconjunctival operation, or the one now often spoken of as the Moorfields' ophthalmic operation, an account of which, as practised by him at that time, was first given by Mr. Critchett in his "Practical Remarks on Strabismus," (THE LANCET, May 12th and 19th, 1855.)

Before, however, suggesting improvements upon the mode of performing an operation, it would be well if the author of every new method had a right appreciation of the proper way of performing the operation he seeks to supersede.

It has been stated and printed in a public journal that some of the objections to the subconjunctival operation are, that the plica semilunaris is interfered with, and that the result is a shrinking and retraction of the caruncle. Again, it is urged that suppuration and large growths of granulations follow the operation, and add considerably to the after deformity.

To such statements I can only say that the writer of them either could never have seen the subconjunctival operation properly performed, or else must have witnessed results very different from those which are obtained at Moorfields.

I would preface the remarks I have to make on this operation by stating that the plica semilunaris ought never to be interfered with; that the falling back of the caruncle is an exceedingly rare occurrence after the operation, and cannot follow it unless improperly performed; and that suppuration of the wound and the after-formation of granulations in the site of the cut in the conjunctiva never occur.

I will now briefly describe the operation as performed at Moorfields.

The lids are kept apart by the ordinary wire speculum. The surgeon then makes a small opening in the conjunctiva with scissors over the lower edge of the insertion of the rectus tendon, taking hold of the membrane, and often of the deep fascia at the same time, with the forceps, which, if the eye be turned inwards, may be slided (closed) along the surface from the edge of the cornea till they reach the proper spot for the opening: thus the eye need not be held by an assistant. The fascia being opened, the lower edge of the tendon is exposed *close to its insertion*. If the fascia has not been opened at the first snip, it is in its turn seized by the forceps at the same point and divided, without interference with any other structure; the object being simply to divide the tendon on the ocular side of the hook *at its insertion*. The blunt hook is now passed through the aperture in the subconjunctival fascia, and behind the tendon, which it renders tense by being made to draw on it slightly forwards and outwards. The next step is the introduction of the scissors. Mr. Bowman insists on the propriety of carefully introducing the points of the scissors, not much separated—one along the hook behind the tendon, the other in front of the tendon, and between it and the conjunctiva, and of dividing the tendon by *successive snips* from the lower to the upper edge. If the tendon is divided by one cut the operation is more roughly executed, for, as the blades have to be opened more widely, the opening in the conjunctiva and fascia must be larger; vessels of a larger size may be divided, and the tendon may be pushed off the hook before the points of the scissors: if this happen, of course the hook must be reintroduced. The surgeon completes the operation by making a small counter puncture, by bulging the conjunctiva on the end of the hook in the situation of the upper border of the tendon after its division, and by then snipping it with the scissors; the object being to allow any of the effused blood immediately to escape, instead of diffusing itself over the sclerotic. The subsequent ecchymosis then never need extend beyond the seat of the operation, and should disappear within a few days.

The results of this operation, when properly performed, are so satisfactory that I feel any new method must possess very strong claims to justify its preference.

Before operating on a patient for strabismus, the visual condition of the two eyes is to be ascertained, and the relative strength of the internal and external recti muscles made out. Mr. Bowman is very decided in urging the necessity of carefully estimating the comparative strength of these muscles in both eyes, as according to their relative power he determines upon the necessity of operating on one or both eyes. He has adopted a set of symbols which indicate accurately their comparative state. The patient is made to look at a near object held at the extreme outer limit of his field of vision, first on one side, then on the other, and the extreme limit of movement of each eye inwards and outwards is then noted, with reference respectively to the lower punctum and the outer canthus; the pupil being the part of the eye used to mark the movement inwards; the outer edge of the cornea the movement outwards. In noting the case on paper, the diagrams of the positions of

the two eyes should be placed on the same line, as if facing the observer; that of the right eye on the left hand side. The following may be taken as an example:—

a, *b*, Right eye. *c*, *d*, Left eye.
a, Extreme range outwards; the outer edge of the cornea fails to reach the canthus. *b*, Extreme range inwards; the pupil passes beyond the punctum. *c*, Extreme range inwards; the pupil does not reach the punctum. *d*, Extreme range outwards; the outer edge of the cornea passes beyond the canthus.

In each case the exact distance admits of being recorded. In this manner the relative strength of the internal and external recti of the two eyes may be estimated, and the result marked down in a single line, so as to show at a glance in which eye the preponderance of power of either muscle exists. After the operation another examination is made, and the result again marked down. We are thus enabled accurately to record on paper the amount of power the one muscle has gained and the loss the other has sustained by the operation, and this at successive periods in the history of each case.

Park-street, Grosvenor-square, June, 1863.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum tam proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

GUY'S HOSPITAL.

ABSCESS OF THE KIDNEY, INVOLVING THE LUNG, ETC.

(Under the care of Dr. GULL.)

THE three following cases are interesting examples of suppuration of the kidney occurring under different conditions. The pathological details are most instructive, and show, in the second case, that the matter ran down the sheath of the psoas muscle and presented in the groin. In none was there pyuria.

George S——, aged thirty-six, was admitted into John ward March 6th, 1863, for lead colic. He said he had been employed in lead works since the previous June, but during this period had been obliged to give up work three times on account of colic, and on the last two occasions for fits. He had five or six fits daily of an epileptic character, but these ceased when he desisted from work.

When admitted, he had the usual symptoms of colic, and after several doses of castor oil was better.

A few days after admission, and when the colic had considerably abated, he complained of pain and tenderness in the left side, and was not able to lie on that side. A friction-sound was audible, and subsequently some dulness of the left lung, with bronchophony. There is no report after this, but he improved somewhat, and was able to go out. At the beginning of April he was worse, and constantly had rigors. For these, quinine was given, but without effect: they continued, and he daily got weaker. His urine was healthy, and not albuminous. On examination, nothing was discoverable except the signs of pleuro pneumonia at the base of the left lung, as before mentioned. He gradually sank, and died on the 25th of April. During the last few days the breath was very offensive.

Autopsy, forty two hours after death.—Brain apparently quite healthy. The left lung was adherent at the lower part. It was in a state of gangrenous pneumonia, and consolidated more or less throughout. Portions of it were gangrenous and very fetid. The base was indurated, and of a dark colour, as if from chronic inflammation. Here it was firmly united to the diaphragm by a dense fibrous tissue; the diaphragm below being thin, but not perforated. The right lung contained a large amount of pigment, and there was some slight induration of the apex. The peritoneum was adherent in the left loin to various parts. The stomach adhered by the fundus to the spleen; and on removing it, an abscess was opened. The spleen was also adherent to the diaphragm and to the kidney. On removing most of the viscera from the abdomen, there was seen to be an abscess within the capsule of the kidney, and enclosed within it except at the upper part, where it was outside and circumscribed by the spleen, stomach, and diaphragm. When the stomach was removed the abscess was opened, but the stomach itself was not affected. The spleen had a large excavation in it, forming one side of the abscess. Above, the latter reached the diaphragm, which was much softened at one spot but not perforated, the pneumonia no doubt having been set up by it, but not actually communicating with the abscess. The upper part of the kidney itself was involved, and partially destroyed, like the spleen; and some matter had penetrated the substance of the organ, but had not reached its pelvis. It appeared as if the abscess had involved the kidney from without, rather than that the suppuration of the kidney had been primary.

TUBERCULAR DISEASE OF THE KIDNEY, WITH ABSCESS, ETC.

(Under the care of Dr. OWEN REES.)

George Thomas G——, aged seventeen, was admitted on the 3rd of March, 1863. He had been troubled with incontinence and some urinary difficulty for nearly three years. A week before Christmas last he went to a medical practitioner, who passed a catheter, and blood flowed. He then consulted Mr. Hilton, who, after treating him a short time, sent him to the hospital. There was then found a swelling in the left groin, apparently due to enlarged kidney; and this was suspected to be malignant. He was then transferred to a medical ward (Stephen), when an abscess appeared in the left groin. This burst on the 23rd of March, and a large quantity of matter was evacuated, emptying the tumour in the loins. He then gradually sank, and died on May 7th.

Autopsy, fourteen hours after death.—The body was much wasted. The base of the left lung was inflamed where in contact with the diseased diaphragm; both lungs had a few miliary tubercles scattered through them; the peritoneum was healthy, except in the neighbourhood of the left loin; the surface of the spleen was involved in suppuration. The left kidney was almost destroyed by old tubercular disease; it was enlarged and full of cavities, formed by soft scrofulous matter. The pelvis was not distended, nor was the ureter below affected; it was not enlarged, nor were the walls thickened, as is often seen, but the mucous membrane only slightly inflamed. It thus appeared as if the disease, from some cause, had not extended downwards; but the purulent matter instead had burst through the capsule, and caused a secondary abscess around. Thus a large abscess existed at the upper part of the kidney and behind it; it had involved the spleen and the diaphragm, passing up behind the latter, and corroding the vertebræ and the heads of the ribs; below, the matter had run down in the sheath of the psoas, forming a large sac, and had escaped at the thigh. The right kidney was healthy. The bladder was but slightly affected. The mucous membrane was minutely ulcerated in one or two spots, and granular, though not distinctly tubercular.

ST. GEORGE'S HOSPITAL.

PHTHISIS; EMPYEMA; ABSCESS OF THE KIDNEY.

(Under the care of Dr. BARCLAY.)

ALICE G——, aged twenty-two, married, was admitted on the 16th of July, 1862. Had enjoyed good health until the last four months, during which time she had suffered acute pain in the back and right hypochondrium, which, with a cough, allowed her no rest at night, and had greatly reduced her in flesh and strength. Catamenia absent two months. The breathing was very harsh in both apices of the lungs, but nothing else was observed. There was some rigidity of the abdominal walls, which made it difficult to examine the abdomen; and there was some bulging in the right hypochondrium. No change occurred till the 24th, when she had a severe fit of coughing, and brought up mouthfuls of pus, so as to suggest

the idea that an abscess had burst and its contents been discharged into the bronchi. For some days after this she appeared to lie at the point of death. She rallied under the use of stimulants in four days, and went on living a wretched life of pain, with restlessness, cough, and spitting, until the 18th of August, when at night she appeared to be dying from suffocation; but she again rallied, and, beyond getting weaker, appeared for some time much as before. On Aug. 30th vomiting after food ensued, and lasted for some days. On Sept. 8th the mouth and tongue were quite raw, and she had great difficulty in swallowing solids; vomiting also frequently occurred. She became weaker and weaker, and died on Sept. 29th.

Autopsy, twenty-six hours after death.—The body extremely emaciated. The right pleural cavity was full of pus; both lungs were bound down to the spine by firm adhesions. The whole of the right lung was riddled with tubercle and small vomicæ about the size of acorns; the left lung also contained a considerable quantity of crude tubercle, some of which was in a state of suppuration. There were firm adhesions between the liver and diaphragm; the liver and spleen were healthy; the left kidney was pale and anæmic. The right kidney was converted into a bag of pus; the whole of its secreting structure being entirely destroyed. The supra-renal glands were healthy.

WEST LONDON HOSPITAL.

BRONCHOCELE BULGING THE TRACHEA INWARDS, NEAR THE BIFURCATION, AS SEEN WITH THE LARYNGOSCOPE; NEURALGIC PAINS OF THE NECK AND ELSEWHERE.

(Under the care of Dr. GIBB.)

MANY patients apply for medical relief under the impression that the larynx is chiefly involved in disease, when their maladies exist in other parts of the body, although perhaps secondarily influencing the larynx. A careful examination with the laryngoscope generally clears up any doubt, as in the two instances which we now publish, wherein a view was obtained of the entrance of one or both bronchial tubes. The details will be found interesting. We may mention, also, that there is at the present time in the hospital, under Dr. Gibb's care, a young woman, aged twenty-three, with severe laryngismus stridulus, due most probably to pressure of some enlarged glands upon the pneumogastric nerves within the chest. The spasms, at night especially, are sometimes most distressing, and suffocation has been imminent several times. The most careful examination with the laryngoscope shows everything to be normal in the larynx and trachea, the vocal cords moving with the most surprising rapidity, yet possessing their usual greyish-white colour.

Elizabeth T——, aged forty-three, married, no children, was admitted Sept. 15th, 1862. She has had a tumour or swelling in the neck ever since she was a girl; but it has remained stationary in size to the present time. She has had bronchitis for the last three months, and is subject to pains about the knees, arms, and shoulders. Two years ago she had an attack of sciatica. During the last winter she suffered much from pains in each side of the neck and upper part of both sides of the chest, which she attributed to the tumour. At times she has pains between the shoulders, also over the heart, and she feels this latter more if she uses the arms much, when her fingers become numb. She is a very tall, stout, plethoric person, with the atheromatous expression well marked. A tumour of the size of a turkey's egg is present on the right side of the base of the neck, resting upon the upper part of the chest, but not entering it; it is divided into two parts, movable above but not below, where it is apparently in connexion with the trachea. She has no dysphagia; but when she swallows the tumour is wholly drawn up, and she feels as if something were sticking in her neck. She has slight dyspnœa when she takes cold, and pain on either side of, but not in, the tumour. She has follicular disease of the fauces, with injection of the membrane, but no ulceration. The laryngoscope showed the epiglottis a little red, the larynx capacious, vocal cords healthy, the passage downwards unobstructed until near the bifurcation of the trachea on the right side, where there was a bulging inwards produced by the adhesion and pressure of the bronchocele since youth. In other respects the bifurcation was well seen, as shown in the woodcut, for the trachea was large and wide—indeed it seemed larger than usual. The bulging inwards partially obstructed the view of the right bronchus. The heart was moderately large and flabby, with feeble but regular sounds, and no distinct bruit. Its action was, however, heard all over the chest. She was nervous and low-spirited, and very uneasy about the "weakness in the throat" and pains in the neck and chest, which made her very miserable from their steady persistence.

a, The epiglottis. *c c*, The vocal cords, between which are seen the rings of the trachea and the bronchial tubes, *b* being on the left. The parts are reversed as seen by the mirror.

Under the use of general tonics, such as quinine and other remedies, and the use of an embrocation, she improved in health, and the pains diminished. The tumour appeared to become a little smaller, and she thought she breathed better. In November the cough was rather troublesome; this subsequently got better. When lately seen she was thinner, and could use her arms and hands in needlework, which she could not do when first admitted. The old pains in the limbs had wholly disappeared.

DYSPNŒA AND APHONIA, PROBABLY DUE TO AN ANEURISM; THE RIGHT BRONCHUS SEEN WITH THE LARYNGOSCOPE.

(Under the care of Dr. GODDARD ROGERS.)

Elizabeth S——, aged forty-five, was admitted in November, 1862. The mother of eleven children, six of whom are living. Always healthy up to four weeks ago, when she experienced sudden dyspnœa and pain at the root of the neck in front. The voice then began to fail, dyspnœa came on, and subsequently aphonia. She was examined, at Dr. Rogers's request, by Dr. Gibb with the laryngoscope on the 3rd December, who found that the voice was sometimes natural, and at other times a whisper, with an occasional croupy sound and a cough. Has had prolapsus uteri for three months. Has now pain in the right side of the base of the neck and across upper part of sternum, with occasional severe dyspnœa at night. Thirsty; mouth very dry; pulse same in both wrists. Is stout, with ruddy complexion, and atheromatous expression. There is deep pulsation felt on the right side of the neck, and sometimes there is pain between the shoulders. There were no special symptoms of cardiac or lung disease. The larynx was normal; trachea seen as far as the tenth ring. Dr. Gibb suspected the disease might be aortic aneurism, from the suddenness of the attack and active symptoms.

On January 1st, 1863, she was again examined with the laryngoscope. There was now pain and soreness continually on the right side of the neck, extending to the right side of the head, face, and eye. The veins were prominent on the right forehead; she felt giddy and disposed to fall on stooping. Cough spasmodic, and distressingly persistent; pain not so uneasy about sternum; voice has returned; is thinner and weaker; orthopnœa at night. Has had a lump in the left side of the left breast five years.

Laryngoscopy showed the mucous membrane of the vocal cords relaxed, and a good view was obtained of the right bronchus. This was well seen three times; but all Dr. Gibb's

a, The epiglottis. *b*, The opening of the right bronchus. *c c*, Vocal cords, between which are seen the rings of the right half of the trachea.

efforts, by change of position, reversing the mirror, and other artifices, failed to obtain a view of the left. He thought the aneurismal symptoms were somewhat clearer.

June 10th.—Although this patient has remained under observation, with improvement in the more distressing of her symptoms, no fresh feature has appeared to call for special note beyond the fact that the evidence afforded by the laryngoscope proved that the symptoms did not depend upon any laryngeal disease. Dr. Gibb was inclined to believe that the inability to see the *left* bronchus was due to spasm, in some way influencing the trachea, which was more contracted on the left than the right side.

WESTMINSTER HOSPITAL.

PHAGEDENIC ULCERATION OF THE TOES, INVOLVING THE PARTIAL DESTRUCTION OF THE OUTER AND INNER, AND TOTAL DESTRUCTION OF THE INTERMEDIATE ONES.

(Under the care of Mr. HOLTHOUSE.)

CAROLINE B——, aged forty-seven, married, and the mother of three children, the youngest five years of age. She has not menstruated during the last eight months, and is very pale and cachectic looking. Admitted into Queen Anne ward on the 13th of January, with an unhealthy-looking, spreading ulceration on the front part of the right foot, which had destroyed all the toes except the inner thirds of the great toe and the outer third of the little toe. The surface of the ulcer was of a dirty-ash colour, without granulations, and secreting a thin, watery, and highly fetid discharge; and the whole foot was somewhat swollen, but not red.

History.—Between one and two years ago she suffered much from boils, a succession of these making their appearance in various parts of the body. The last was on the right leg, and was one day accidentally struck with a chair, which set up a good deal of additional inflammation; it, however, at length healed, but was succeeded by an eruption which, from her description, would seem to have been eczema. This "settled in" the foot and toes, and the leg got well; but she became so lame that she was obliged to apply at a dispensary, where she was a patient for six months. She subsequently came under the care of Dr. Smyth of Lambeth, who, finding the ulceration continued to spread, sent her to Mr. Holthouse, by whom she was admitted, in the condition above described.

The treatment consisted in the exhibition of the mineral acids with bark and opium, and the application of yeast poultices, and afterwards black-wash, to the ulceration. Under this treatment the progress of the disease was at once arrested; the ulceration soon afterwards put on a healthy character, and on the 14th of February it had nearly healed. On the 25th of the same month the patient was discharged cured, and very much improved in her general appearance.

In some remarks made by Mr. Holthouse at the bedside of the patient, he said he had never before met with a case similar to this. In the situation and in the character of the ulceration, it more nearly resembled some of the forms of tertiary syphilitic disease than anything else he could liken it to; he had never, however, seen such destructive results from that cause, neither were there any other appearances or any history of syphilitic disease to warrant this supposition. Excepting the *character* of the ulceration, the *effects* closely resembled those of frost-bite.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

TUESDAY, JUNE 23RD, 1863.

MR. PARTRIDGE, PRESIDENT.

OBSERVATIONS ON STERILITY IN MAN; WITH CASES.

BY T. B. CURLING, ESQ., F.R.S.,
SURGEON TO THE LONDON HOSPITAL, AND EXAMINER IN SURGERY TO THE UNIVERSITY OF LONDON.

THE object of this communication is to show that a want of aptitude to impregnate may coexist with the capacity for sexual intercourse, or, in other words, that man is subject to *sterility* independently of *virility*.

The author states that sterility in man may arise from the following causes:—

1. Malposition of the testicles.
2. Obstructions in the excretory ducts of the testicles.
3. Impediments to the escape of the seminal fluid.

1. *Sterility from malposition of the testicles.*—The author remarks that the opinion of John Hunter "that when one or both testicles remain through life in the belly they are exceedingly imperfect, and probably incapable of performing their natural functions," is corroborated in a remarkable manner by the facts adduced in this paper. After describing the condition of detained testicles, the author states that the question to be considered is, whether a testicle that has not passed into the scrotum can secrete a fertilizing fluid. He assumes, as quite established, that to possess this property the semen must contain zoosperms.

Having referred to the observations of Professor Goubaux on horses, and to those of Follin and Godard on man, the author remarks that the proofs adduced by these observers were not sufficiently cogent and numerous to establish the law that cryptorchics are infertile; and it could not be expected that assent should be given to results so remarkable and unexpected without evidence of the most convincing character. Opposite opinions continue to be entertained, and have recently been avowed by Dr. Alfred Taylor.

The author gives the particulars of two cases of double detained testicle in married men (cryptorchics) without children; and also two cases of single detained testicle, the second testicle, in one case, being completely atrophied, and in the other having been removed by operation. In all four cases the copulative powers were satisfactory; but the ejaculated semen was destitute of spermatozoa. The author gives a table, which includes these four cases and five others, three described by Godard, one by Puech, and one by the President of the Society, making nine in all, in which the fluid ejaculated by men with retained testicles was submitted to examination and found to be destitute of spermatozoa. In confirmation of the results obtained in these cases, he deduces some observations made upon the lower animals by Messrs. Goubaux, Follin, and Godard; and he furnishes a table of eight cases in which the fluid found after death in the substance of a retained testicle—in the epididymis or vas deferens, or in the vesiculæ seminales on the side corresponding to the misplaced gland—had been examined and found destitute of spermatozoa. They have not been discovered after death in the spermatic ways of a detained testicle in any one instance that he knows of.

The facts which have been brought forward as opposed to the conclusion that cryptorchics are sterile, are chiefly instances in which they are reputed to have procreated children. Three cases are cited: one recorded by Mr. Poland, another communicated by Mr. Cock, and a third by Mr. Durham. The author feels no little hesitation in calling in question the claims to paternity in these cases; but remarks that as yet no case has been found in which a retained testicle has been fully proved to be capable of secreting a fertilizing fluid. The observations collected in the paper seem sufficient to show that, as a rule, they do not; and though he sees no valid reason why there should not be exceptions, still the evidence is wanting to establish the exception in either of the instances of reputed paternity which have been mentioned.

2. *Sterility from obstructions in the excretory ducts of the testicle.*—After giving a brief account of Gosselin's researches, in which he showed that after attacks of gonorrhœal epididymitis the channel for the semen is temporarily and sometimes even permanently obstructed, causing, when the epididymitis is double, sterility, the author relates three cases occurring in his own practice of permanent obstruction in the epididymis of both testicles in married men whose wives were barren. In all three the patients had vigorous powers; but there was a total absence of spermatozoa in the ejaculated fluid. The author insists on the importance of careful and prolonged treatment in cases of epididymitis to obtain the removal of inflammatory effusions.

The author remarks, that the passage of the semen from the testicle may be prevented by congenital absence of the vas deferens, which, if double, would occasion sterility. A case of the kind, in which the testicles were sound, had been observed by John Hunter.

The excretory duct of the testicle is liable also to be interrupted by tubercular deposits in the epididymis. It is well ascertained that this part is much more frequently the seat of tubercle than the body of the gland, and is often extensively diseased, whilst the substance of the testicle remains sound. The author gives a case in point, in which the semen was destitute of spermatozoa.

3. *Sterility from impediments to the escape of the seminal fluid.*—It is well known that a close stricture in the urethra so completely interrupts the passage of the seminal fluid, that in ejaculation it regurgitates into the bladder, where it mixes

with the urine. In erection of the penis, the urethra becomes narrowed, so that a stricture which offers but a slight obstacle to the flow of urine may under congestion be sufficient to impede the emission of semen. The author has grounds for concluding that sterility from chronic stricture in the urethra exists to a greater extent than is commonly supposed. As the condition is one which is in most cases remediable, it is only necessary to call particular attention to it as not an uncommon source of infertility.

The author alludes also to a case in which he had reason to conclude that sterility was consequent upon inflammation and abscesses near the prostate gland, occasioning obliteration of the ejaculatory canals.

Two important and delicate questions arise out of these inquiries. 1. Whether a man who has the inclination and power to copulate, but who is nevertheless sterile, is justified in contracting marriage. 2. Whether this condition is a sufficient ground for divorce.

That a man who is unable to fulfil the command, "to be fruitful and multiply" is right in disappointing the hopes and periling the happiness and perhaps health of a woman, cannot, the author thinks, be maintained by any casuist, and in some of the cases related in the paper he has felt it his duty to give advice in accordance with this opinion.

It cannot be doubted that in women ready for conception, frequent sexual excitement without impregnation is very likely to prove injurious to health, and the author shows from the writings of Dr. West that diseases of the ovaries and uterus originate from this cause.

The second question is one upon which a surgeon is scarcely called upon to pronounce an opinion. But the author ventures to remark that as sterility in women is not considered an adequate cause for divorce, so the man ought not to pay such a penalty for unsuspected unfruitfulness.

The PRESIDENT then related several cases bearing on the paper. A gentleman, aged thirty-four, had been married eight years to a healthy wife. He had strong sexual desire, and frequent intercourse, with abundant emission, but no family. He died of tumour in the groin, which was found after death to have been due to encephaloid disease of a retained testis. The other testis, which was also retained, was of the natural size, but did not contain any spermatozoa. Unfortunately the disease had extended to the bladder, so that the condition of the vesiculæ seminales could not be made out. In a second case, not under his (the President's) observation, a gentleman whose testes were retained, and who had frequent intercourse with his wife, ejaculated a transparent fluid, but it did not contain spermatozoa. A gentleman, thirty-four years of age, whose testes were undescended, had frequent sexual intercourse and free emissions, but the fluid, which was examined four times, did not contain spermatozoa. This gentleman was desirous of knowing if he ought to get married. The President told him that if he did he would have no children. In a fourth case, one testis was misplaced in the perineum, the other was normal. He (the President) tried by an operation to bring it to its natural position, but did not succeed. He subsequently removed it. It did not contain any spermatozoa.

Dr. WEBSTER said the subject discussed by the author of the paper just read was of much interest, and he believed with him that sterility oftener depended upon males than females. In support of such an opinion, he would refer to nearly 300 married men within his own acquaintance who, during their matrimonial state, never begot any offspring, excepting one instance, where a child was born after the mother had remained barren during fifteen years. In the list kept by Dr. Webster no person was entered until the parties had lived together for at least five years; and, although he never investigated the matter so scientifically as Mr. Curling, there appeared little doubt the fault mainly depended upon the male, since various females who continued childless throughout their first marriage, on contracting a second became mothers; whereas there only occurred, in reference to the opposite sex, the solitary example already mentioned. It might, however, be added as curious that a large proportion of the sterile individuals Dr. Webster had thus recorded were medical practitioners; and, moreover, what seemed also rather singular, seven of these couples lived in a thoroughfare having the same designation, but with different numbers on their respective residences. Regarding the chief cause of barrenness in the various illustrations to which Dr. Webster referred as coming under his immediate observation, none having been patients, it was impossible to speak definitively; nevertheless, as analogous cases are not uncommon, the inquiry mooted by Mr. Curling was important, both medically and in its social relations, besides bearing specially on questions of jurisprudence.

Mr. WYATT asked if any of the gentlemen Dr. Webster spoke of had suffered from spermatorrhœa in youth.

Mr. ACTON was pleased to think that the subject of sterility had been brought before the Society, thus proving that the affections of the reproductive organs were at length occupying that professional attention which their importance demanded; and he hoped that their treatment would never be again tacitly given up to the quacks, but pass into the legitimate domain of science. In the presence, then, of this professional neglect, it was not surprising to find so much public ignorance existing on the subject of the paper—a subject, it must be admitted, still requiring much original investigation. He (Mr. Acton) was indisposed to allow that only three causes of sterility existed. The following was not of uncommon occurrence. A young entire horse, who has been a sure foal-getter, has, say, forty-five mares put to him; none of these mares become strutted (as it is called). Here was sterility on a large scale, and opened a wide field for inquiry as to whether the cause was obesity or sexual exhaustion from previous seasons' covering—causes which he had fully dwelt on elsewhere as commonly influencing sterility both in man and beast. It might, then, be consolatory for the medical husbands alluded to as having no family to know that the profession did not consider that they must necessarily suffer from undescended testes or epididymitis—the result of old gonorrhœas. After all his experience, he (Mr. Acton) was disposed to think that the childlessness of many women did not depend upon the fault of the husbands, but upon the fact that some of the canals appertaining to their own reproductive organs were blocked up either temporarily or permanently. Practically, it was found that too often the opinion of the profession was not asked by patients before marriage. The saddest cases met with in daily practice were those of previously strictly continent men, who married, and then learnt for the first time that they were incompetent to their marital duties; it was then that the medical man was first called in, and his opinion asked as to the cause of sterility. The answer was not such an easy one as had been assumed. The reason arose from many social causes, which could not be given on the present occasion. If it was truly stated that modern accoucheurs were of opinion "that frequent sexual excitement without impregnation was likely to prove injurious to healthy women," he must join issue with them. That the modern civilized lady was very subject to uterine or ovarian disease he would admit; but to attribute these ailments to such a cause as that above alluded to was not founded on observation, seeing that so many single young women were as great if not greater sufferers than the married, though sterile. He must likewise raise his voice against the assertion that epididymitis was a frequent cause of sterility, seeing the number of instances of young men who had been affected with this ailment who afterwards had a family. In treating of the causes of sterility, he would assert that the prognosis was not so unfavourable as had been stated. The Fellows of the Society must be aware of numberless instances of temporary sterility yielding to proper remedies, thus proving that the affection did not depend alone upon mechanical impediments to impregnation, but, like its kindred condition, impotence, was a frequently remediable affection.

Mr. FERGUSSON said he was disappointed that in a paper by a gentleman of so great experience as Mr. Curling, so little evidence could be brought forward on the subject. He then referred to malposition of the testes as a cause of impotency, but it had long been known that where the genital organs were imperfectly developed, the great probability would be that the sexual vigour would also be imperfect. He should like to have heard more evidence brought forward as to the condition of the ejaculatory tubes in cases of this kind. He (Mr. Fergusson) then went on to speak of the effect of inflammation of the ejaculatory tubes interfering with sexual power. He also alluded to the fact that sometimes, though rarely, they were injured in the operation of lithotomy, and related an instance in which a gentleman, seventy years of age, complained seriously of loss of sexual power after the operation; and another instance of the same defect in a younger patient. He said that although both testes might be affected by orchitis, generally only one was attacked, and the absence of one testis had very little to do with sexual vigour. In reference to Dr. Webster's statement, he said that he (Mr. Fergusson) knew a lady of most perfect development, who had had two children, and then became a widow. She then married a widower who had also had two children by his first wife, but this second

marriage was not fruitful. Mr. Curling had also omitted to ascertain the exact time when the fluid examined had been emitted.

Mr. CURLING had heard that the President was in possession of some facts bearing on the points in his paper, and had applied for this information some weeks ago, in order that his communication might be rendered more complete, and he regretted to state that the President was not disposed to assist his inquiries, and did not reply to his application. He had, however, included in a table one of the cases which had been mentioned, and which had already been communicated to the Pathological Society. With regard to Dr. Webster's remark, that sterility was more common in men than in women, he could express no opinion, for there were no data to enable him to form one. He had little to say in reply to the observations which had fallen from Mr. Fergusson and Mr. Acton. Mr. Fergusson had missed altogether the real point of the paper, which was on sterility, and not on impotency. Mr. Fergusson mentioned that we were well acquainted with the fact that persons with small, undescended testicles were impotent; but there was nothing new in that. But in the cases which he (Mr. Curling) had brought forward in his paper, the subjects of this infirmity were not impotent; they were only sterile. He had listened attentively to Mr. Fergusson's lengthened remarks, and could discover nothing which bore, in any way, on the paper, which had evidently not been understood by the speaker. He might also make the same remark in reference to the observations of Mr. Acton. He quite agreed that sterility after epididymitis was not common, because to produce sterility the obstruction must exist on both sides. Mr. Acton doubted whether sexual excitement, without impregnation, produced any injurious influence on the health of the woman. Mr. Curling had the authority of Dr. Tyler Smith and Dr. Priestley, as well as of Dr. West, from whose work he had quoted, for saying that diseases of the ovaries and uterus originate from this cause. Mr. Curling had not laid claim to originality, but from a large experience he had been able to produce some important facts bearing upon a delicate subject, at present involved in obscurity, and respecting which it was extremely difficult to obtain reliable information.

Reviews and Notices of Books.

The Encyclopædia Britannica. Eighth Edition. Edinburgh: A. and C. Black.

IN a former notice* of this remarkable publication we traced the progress of its several editions to the proud position which it has now attained. Any analytical examination of the varied contents of its several volumes would within our limits be impossible. It must suffice to say that each article forms a distinct essay on the subject of which it treats. The Messrs. Black appear to have left no means untried to render this present edition worthy of a foremost rank among the greatest intellectual efforts of this age. The highest ability, the most approved experience, and the deepest research therein combine to form a splendid memorial of our present scientific and literary status. As a book of reference, the Encyclopædia Britannica embraces every topic which may be expected to arise for discussion. As an authority on the several matters of which it treats the distinguished reputation of its contributors is a sufficient guarantee. In no similar work can the writings of so many famous men be found conjoined. It is therefore to be regretted that of necessity a certain disadvantage attaches to a publication of such magnitude and price. The general reader can scarcely hope to purchase it. This inconvenience is one, we rejoice to add, capable of being in a great measure counteracted, in consequence of the numerous local literary and scientific institutions existing throughout the country. The grounds on which rest the claims to public favour of this edition will be evident from a glance at the list of contributors. In Theology the subtle reasoning of Whately, the learning of Alexander, the research of Bunsen, are combined with the scarcely less valuable writings of Taylor, Tulloch, and Cazenove. To Philosophy proper and its history, Dugald Stewart, Sir James Mackintosh, and Dr. Whewell have contributed preliminary discourses, which constitute not the least foundations of their fame. Dr. Mansel (on Metaphysics) and Lord Jeffrey (on Beauty) have expounded those views which have long rendered their criticisms authoritative. Questions of Political and Social Philosophy are discussed by M'Culloch, Mill, Ricardo, Malthus, Dr. Lethcby, and Dr. Lankester, in conjunction with others of scarcely inferior reputation. Natural Philosophy and its kindred branches of learning number Playfair, Henderson, Sir John Herschel, Sir John Leslie, Sir David Brewster, Professors Thompson, Traill, and Rankine, as expounders of their truths. Natural History finds elucidation from James Wilson, Sir John Richardson, Sir J. Herschel, Professors Nicol, Owen, Jukes, Balfour, Gregory, and Latham. Medicine and Surgery have no unworthy representatives in the experience of Craigie, Miller, Laycock, Thompson, and Traill. Toxicology enlists Christison and Simpson; Physiology, Hughes Bennett, with others who have since become famous. First among the biographers stands the name of Lord Macaulay, whose five invaluable contributions are declared to have been generously presented by their noble author as a token of friendship to the senior proprietor. We might continue this analysis, and show that in every department equal efforts have been made to place the merits of this work beyond dispute. It requires no such vindication. It is our privilege to impress on our readers the public importance of, and the public support which ought to be rendered to, such a great national undertaking.

The chief characteristic of the present day is an active spirit of enterprise, which has infused itself through men of all classes. A desire for knowledge has led to the institution of innumerable associations for avowedly intellectual pursuits. To these, as we have mentioned, libraries are attached. It is no easy matter to meet the requirements of their various members, or to limit the volumes to those which are unexceptionable. We venture to recommend to the committee of every such association the work under review. As books for reference, the extent and scope of the contents of the several volumes leave nothing to be desired. In their pages men hold converse with Westmacott, Hazlitt, Haydon, Moir, and Aytoun on the subject of Art; or discuss questions of Manufacture with Bazley, Ballantine, Napier, and Fairbairn. True, that advancing science may in course of years replace some of their opinions. But are the views of Stephenson, who treats of the building of bridges, of less value because experience has since improved on his plans? To be enabled to refer to the most approved authorities on all matters of Engineering, Manufacture, Mechanics, or other practical arts, without further research than the examination of an index, is a privilege and power which the commercial enterprise of the publishers has afforded, directed as it has been to the highest purposes which capital and skill could effect. We assert that to regard a work of this character as a matter of mere mercantile speculation, an affair of profit and loss, is to take a narrow and restricted view of that enlarged and liberal spirit which has carried it to such perfection. Rightly appreciated, these volumes must become instruments even more of public good than of private gratification. We know that a thirst for knowledge prevails. It is something to feel that the fountains from which it may be satisfied are pure and good. The writings which this national work affords must refine while they improve, and fascinate as they instruct. Careful editing has preserved a certain uniformity throughout the whole. Libraries are condensed into volumes, of which it is not too much to say that not only the publishers, but the country, may feel justly proud.

Outlines of Surgery: being an Epitome of the Lectures on the Principles and Practice of Surgery delivered at St. Thomas's Hospital. By F. LE GROS CLARK, Surgeon to the Hospital, &c. London: Churchill and Sons.

THESE outlines professedly consist of little more than the notes, somewhat amplified, from which the author's lectures have

* THE LANCET, vol. ii., 1861, p. 137.

been delivered. They are offered to the student "in the hope that he may be encouraged to fill in the details from actual observation, and thereby cultivate a habit of self-reliance instead of depending too much on book-teaching in his early studies. Illustrative notes and cases, thus collected by himself, can scarcely fail to be of lasting value to him in his future practice. Beyond this legitimate aim the present volume can, of course, have no pretensions in common with more comprehensive systems of surgery."

Mr. Clark thus very fairly and frankly states the intention of his publication; and after a searching perusal we may say, that as the object of the book is very laudable, so is its execution very admirable.

In these days of great books, many lectures, heavy treatises, and systems in four volumes thick octavo, no doubt it is an important relief to the student to find here and there a small unpretentious handbook such as this, which gives him the heads of the subjects and enables him hastily to refresh his memory by enumerating the principal "pegs," so to speak, upon which the minor details hang. It is very important that a work of this kind should be written by a thoroughly well-informed and practical surgeon; for many handbooks are sad trash, and instead of finding the chaff winnowed away and the finest bolted grain only retained, we meet with a mere scanty modicum of husks and grain gathered up in a hasty handful. Not so in this little handbook of Mr. Le Gros Clark. He marches with five-leagued boots across the wide domain of the surgical art, but he strides across the less important objects only, and rests everywhere at the more essential guiding points.

Hints and Observations on Military Hygiene, with the best means of treating the Medical and Surgical Diseases of the Army. By LAURENCE TURNBULL, M.D., one of the Surgeons of the Havard Hospital. Philadelphia, 1862.

DR. TURNBULL has here collected from the best sources such facts and observations as may be considered most practically important regarding the sanitary management of troops in and out of camp, the supervision of their health, and the relief of their medical and surgical disorders. The most ample drafts are made upon the pages of Stromeyer's "Maxims of Military Surgery," giving the result of his campaign of 1849 as surgeon-in-chief of the Schleswig-Holstein army—which, indeed, is the most valuable contribution to that branch of the art offered since the publication of Guthrie's Commentaries. Liberal use also is made of the stated opinions of Dr. Rush, derived from his experience in the revolutionary war of America. In respect to Land Scurvy the author makes some very interesting remarks.

All the best European authors are drawn upon—Heyfelder, Esmarch, and Anthony White—for rules of resection. Various forms of bullet-extractor are shown, not so good as the two most used in our own army—those of Savigny and Coxeter. Gunshot Wounds of the Eye are discussed chiefly on the authority of White Cooper's chapter on the subject in his recent standard work on Wounds and Injuries of the Eye.

As a good practical summary of the leading points in military surgery, clearly and pleasantly written, Dr. Turnbull's work will repay perusal by any reader, and no doubt is capable of rendering great help to the large body of American surgeons now engaged in the cause of their country.

ADULTERATION OF BREAD.—A recent report of the City Officer of Health having disclosed the fact that a great proportion of the German yeast imported into this country is largely adulterated with pipeclay, the Commissioners of Customs have been appealed to for the purpose of checking the importation. Their reply, however, not being satisfactory, the City Commissioners have, very properly, resolved to bring the matter forthwith before the Home Secretary. The subject is one of such importance that Sir George Grey will, doubtless, institute proceedings to remedy so gross an abuse.

NITRATE OF SILVER.

To the Editor of THE LANCET.

SIR,—I think it very important to call the attention of surgeons to the superiority of the ordinary nitrate of silver over the new preparations which have been now some time in use. The new preparation—"lunar caustic points, perfectly tough"—is worthless as an application in surgical cases. It is not nearly so soluble as the old brittle stick of nitrate of silver, and has scarcely any power in checking and subduing inflammation, and useless in the cure of wounds. The same remarks apply to the cake and crystals of the nitrate of silver used for photographic purposes; which, although they may be more chemically pure, are much less efficacious for surgical purposes than the old preparation.

It is a remedy to which I called the attention of medical practitioners thirty-seven years since in an "Essay on the Use of the Nitrate of Silver." Every succeeding year it has maintained its value in my estimation; but I fear that if the new preparations continue to be used, it will undeservedly fall into discredit.

The grounds upon which I have formed my opinion are these: I have used the new preparations for some time; and in cases where from past experience I looked forward with a certainty to successful results, I have been much disappointed, and the cause was to me then inexplicable. To give a case: A medical friend had a severe puncture. I applied the nitrate of silver with a conviction that he would have no further trouble with it. To my surprise, the application took little or no effect; surrounding inflammation followed, also of the absorbents. Further applications were made with the same nitrate of silver; but the inflammation continued its usual course, keeping my patient several days in bed, and afterwards it very slowly subsided. Another case: A patient had a severe contused wound on the middle finger of the left hand from a fall. The nitrate of silver was well applied. I expected it would heal under an adherent eschar. That it did not do so surprised and disappointed me. The wound remained some weeks in a painful and inflamed state; and when at last it healed, it left an irritable induration, with swelling. This I treated again and again with the nitrate of silver without much benefit. These and other cases I could relate (one especially, a formidable attack of erysipelas on the leg, which formerly I found yielded to the application, entirely failed) led me to think there must be something wrong in the preparation of the nitrate of silver; and it occurred to me that the new preparation did not produce so much pain as the old did immediately on its application. I procured some of the old-fashioned stick of nitrate of silver. The first application on the case above mentioned did more in removing the irritable, inflamed swelling in four days than all former applications.

From the experience I have had daily of the use of the nitrate of silver for so many years, I am convinced that no remedy of equal power in subduing external inflammation and healing wounds has been discovered, if properly applied, although many remedies have been recommended in lieu of it.

In cases of extensive external inflammation I would use a solution of four scruples of the old-fashioned stick of nitrate of silver to four drachms of distilled water. In common cases of inflammation and wounds, the ordinary stick, as particularly directed in my last work—"Additional Observations on the Use of the Nitrate of Silver," &c.

I am, Sir, yours respectfully,

Nottingham, July, 1863. JOHN HIGGINBOTTOM, F.R.S.

MEDICAL PICNIC.—The members of the profession at Southampton had a picnic at Netley Abbey on Thursday, the 25th ultimo. The party, numbering about seventy gentlemen, included the medical staff of the Royal Victoria Hospital. Dinner was served in the old refectory of the abbey, at which Dr. Ballar presided. These reunions foster a kindly feeling amongst the members of our profession. We believe that to Dr. Wiblin the credit is due of having originated them. He has laboured assiduously in the promotion of professional fellowship in the neighbourhood in which he resides. It is a good example, and well worthy of imitation. It is equally to the interest of the public and of the profession that there should be an understanding with respect to the position that they relatively occupy. A reciprocity of feeling and conduct between the medical practitioners of a neighbourhood tends to elevate their status and to confer great benefits on those who are entrusted to their charge.

THE LANCET.

LONDON: SATURDAY, JULY 4, 1863.

The moment of reform has arrived for the College of Surgeons. The course which we have felt it our duty strongly to urge upon the Fellows has been successfully pursued. The prediction on which we ventured has been fulfilled to the letter: the three candidates whom we named as in the highest degree worthy of the support of the Fellows have been returned by large majorities, and in the very order which we believed and stated to represent their relative claims upon the present occasion. Thus a great principle has been vindicated: the principle of reform. A great triumph has been achieved—one of the most considerable that has been recorded in the annals of the profession for many long years. Whether we regard its completeness, its present importance, the great influence which so striking a demonstration of opinion will have on the existing management of the College affairs, or the vista of future reforms which it opens up, there is equal cause for congratulation that this important step has been taken. The routine of re-election has been annihilated by a firm and decisive blow. Retirement ceases to be synonymous with re-election. The assumption of a life-long interest and permanent possession of the honours and dignities of the College is destroyed.

By their votes on this occasion the Fellows have made a declaration which will have immense influence in regulating the future government of this corporation. An element of responsibility is at once introduced: for the controlling power of the constituency will now be felt. Considerable results will immediately flow from this change. Existing Councillors will feel that they are more directly responsible to their constituents, and will lend themselves the more readily to those measures of improvement which are loudly called for and urgently needed in the conduct of affairs. The charter will begin to receive that development which justice and common sense alike demand, and which has been too long restrained by the influence of veteran *inertia* and personal selfishness.

The Fellows have now declared that the annual elections to fill vacancies in the Council will be carried out with a due sense of their meaning and utility. The infusion of new blood will of itself have a beneficial effect. Mr. LANE, Mr. BUSK, and Mr. HANCOCK are all men of independence of character, and untrammeled by the traditions which have long paralysed the utility of the Council in so many respects. They must, in honour, consider themselves pledged to the principles in virtue of which they were elected. A further sprinkling of active-minded and intelligent representatives, understanding what are the wishes and demands of the Fellows and Members, and what are the best interests of the College, will so affect its composition that progress need no longer be deemed hopeless.

The precedent of Thursday is pregnant with vital improvement. New candidates, nominated by the voice of the profession, and possessing high intrinsic claims for vacant seats at the Council, will no longer hold back from personal considerations: they will not shrink from fear of being denounced as meddlers, branded as revolutionists, or defied as personal enemies of the retiring members, who have hitherto assumed a right of re-election. To some, the election of Mr. LANE, Mr. BUSK, and Mr. HANCOCK into the Council on the present occasion may not seem to be a circumstance of so much importance as to call for the loud expressions of triumph with which this event has been and will be hailed by the great body of Fellows and Members of the College. But it must be remembered that the Council is the source of all executive power in the College. By them the Examiners are appointed, and from amongst the Examiners the President and Vice-Presidents are selected. From the Council must proceed, therefore, all those changes which are so desirable in the constitution and tenure of the Board of Examiners and the presidential offices. The rule of strict seniority, and the restriction within a narrow and self-privileged circle, are carried to the highest pitch of absurdity in reference to these appointments. The members of the Council sit at the Board in the same venerable order of rotation, and the affairs are practically regulated in a great measure by the half-dozen or so oldest members who sit near the head of the table. The junior members—none, we believe, under sixty, and many considerably over seventy, years of age—hardly dare to break the rule of seniority by opening their mouths. It is much as though the affairs of the nation committed to Parliament were practically delegated to the twelve oldest members.

The Examiners are the potentates of the College; they are selected, also mainly by seniority, from the Council; they nominally retire after a term of years—practically, they have hitherto held life appointments. No Examiner has ever been chosen out of the range of the Council, although the charter makes no restrictions. No President or Vice-President has ever been chosen except from among the Board of Examiners. The result is known to the whole profession. The Examiners of the College of Surgeons are unlike any other board of examiners in the world. Here we have gentlemen, far advanced in the vale of years, examining in subjects which some of them never taught, and which many of them have more than half forgotten. The Examiners of the Royal College of Surgeons are far from being all anatomists: the anatomy of the College of Surgeons is far from being the anatomy of our schools—very far from being on a level with the advanced research and newest knowledge of the day. The conflict would be yet greater were it not that lecturers and grinders consider these peculiarities and shortcomings, and, anxious for the well-doing of their pupils, are largely employed in teaching them

what they are expected to say, and how they will find it necessary to adapt the description of certain things as they are to the convictions of some of these Examiners respecting the same things as they were once believed to be. The Board of Examiners, as at present constituted, is a known scandal to the College. It is appointed and maintained on a vicious principle. There is no reason why they should be appointed solely out of the Council: there is no reason why the oldest and most venerable Councillors should be selected for work which would not be ill-performed by young, able, active men, teachers of anatomy and physiology who are fresh from the schools, and have been employed for years in the investigation of the subjects of examination. Surely, if the Examiners were periodically appointed, as in all other Colleges and Universities, men such as BUSK, FERGUSSON, LANE, PAGET, HEWETT, HILTON, and SAVORY, would have been called to the aid of the Board, and the examinations of the College would not have suffered from their assistance.

The action of the Fellows on this occasion has rendered such discussions vital with present interest. With the long-existing constitution of the Council, and its traditions of immobility, of close monopoly, and of unbending selfishness, there was no possibility of reform. The executive power rests with the Council; and so long as that body could resist the influence of public opinion, and hold at arm's length the great body of Fellows, a dead-lock was maintained. But now the Fellows have set their shoulders to the wheel. The old coach may vibrate a little with the shock; the wheels creak; the rusty springs groan. Some of the somnolent and venerable inside passengers are gradually waking up from their pleasant dreams, and crying out that their places were booked for life; but as this does not prove to be the case with all when they show their tickets, we hope that a certain due proportion will resign themselves to being politely bowed out into their comfortable private carriages, and allow us to proceed a stage or two further. The journey has been well begun: three good names have been added to the way-bill; and we hope that brighter scenes and prospects now will open as the fresh path is vigorously pursued.

LORD SHAFTESBURY'S philanthropy is sometimes singularly aggressive. He is apt to throw into the measures he advocates energy so superabundant as to startle alike friends and foes. In his excess of zeal he at times deals blows indiscriminately, and admiring and applauding bystanders suddenly find themselves overturned by a vehement and unexpected onslaught. The medical profession are at present in this case. Hailing with the greatest satisfaction the action which Lord SHAFTESBURY has taken in the matter of Bethlehem Hospital, they are subjected without warning to a promiscuous and most obnoxious assault. Never had a philanthropist a clearer and more straightforward subject than his Lordship has in Bethlehem. The arguments in favour of the removal of Bethlehem at the present time, and under the conditions offered by the governors of St. Thomas's Hospital, are incontrovertible. The additional public advantage to be obtained by this removal may be fairly regarded as outweighing the sanitary advantages to be derived from a site for St. Thomas's Hospital on the banks of the river facing the Houses of Parliament, as set forth by the medical staff of that establishment. But Lord SHAFTESBURY, not content to restrain himself within the legitimate track of his argument, when, on the 27th ult., he addressed the House of Peers on the question, must travel out of his way to cast an undeserved and most unjustifiable slur on the medical profession. He took occasion to speak of the importance of seizing every opportunity of having a body of medical men skilled in the scientific treatment of lunatics, and of the suitability of Bethlehem Hospital as a school "where men could be trained in this branch of the profession." He admitted that there were some eminent men engaged in the said branch; but they were very few compared with the great mass of the profession. His Lordship then added: "It seems to be a received opinion in this country that because a medical man understands the treatment of the human body, he must therefore understand the remedies applicable to the human mind; but we know that nineteen-twentieths of the medical men of the country understand little more of the scientific treatment of lunatics than they do of Hebrew or Chaldee."

The want of schools for the practical study of lunacy has been a long-standing subject of complaint on the part of the medical profession. They are, however, powerless in the matter, except in so far as the Commissioners in Lunacy and the Legislature help them. They, moreover, have long conceived that the help hitherto accorded was of the most niggardly and inefficient description; and that the chief action of the Commissioners in the matter has been, as of their Chairman in the present instance, disingenuously to adopt the complaint of the profession as a complaint emanating from themselves, and to make use of it on public occasions as a reproach to the profession. If, as Lord SHAFTESBURY asserts, there are few eminent men practising in lunacy, we would ask what inducement there is for able men to devote themselves to this branch of the profession if the intercourse of the Commissioners with alienist practitioners is governed by opinions such as Lord SHAFTESBURY has expressed? It would be idle to oppose assertion to assertion on the extent to which a knowledge of lunacy prevails among the medical profession. The value of his Lordship's statement in this respect will be best estimated by a reference to certain prior enunciations on the same subject. In his evidence before the Parliamentary Committee on Lunacy in 1859, he took occasion to point out that the knowledge of lunacy among medical practitioners was extremely limited. "Of course," he said, "there are some who have attained to a very great degree of science and knowledge, and there are most eminent names in England at present. But people assume, because a man is a medical man, he must have a knowledge of lunacy, and they therefore apply to him for his opinion; but the fact is, that a medical man has no more knowledge of lunacy than any other human being, unless he has made it his special study; it is a specialty, and as such requires minute study as anything else. For my own part, I do not hesitate to say, from very long experience, putting aside all its complications with bodily disorder, the mere judgment of the fact whether a man is in a state of unsound mind, and incapable of managing his own affairs and going about the world, requires no professional knowledge. *My firm belief is, that a sensible layman, conversant with the world and with mankind, can give not only as good an opinion, but a better opinion than all the medical men put together; I am fully convinced of it.*" His Lordship further limited, in effect, the utility of the medical man in lunacy to the treatment

of such "bodily derangements and symptoms" as might arise irrespective of the insanity; and he restricted the recognition of lunacy within bounds which would render its early treatment impossible.* Being asked his opinion on the capacity of magistrates for deciding upon cases of lunacy, he responded: "In ninety-nine cases out of a hundred the magistrates know little or nothing about the matter." Clergymen being referred to, and their diagnostic capabilities, he said: "I should have more distrust of the religious gentlemen than I should of the medical men." He suggested that local *medical* examiners should be appointed, but the inconsistency of this suggestion with the opinions he had expressed on the error of regarding medical men as the sole judges of insanity having been noted, he remarked that "*the medical men were the only persons in the neighbourhood of the asylums who were likely to have given any attention to the matter!*"

Lord SHAFTESBURY holds, indeed, that the opinion of a layman is of greater value in lunacy than that of a medical man; that a clergyman's opinion is to be distrusted more than that of a medical man; that magistrates know nothing about the matter; that lunacy is not lunacy in the earlier stages; and that the physician's special duty goes no further in insanity than the treatment of incidental disorders. These opinions were expressed by the Chairman of the Lunacy Board when representing, officially, that Board in a grave public inquiry. A phase of the same opinions was exhibited in the House of Peers on the 27th ultimo. To comment on self-evident absurdities is to commit as great an absurdity as any of those commented on.

Is it to be wondered at that, on the one hand, a profound sense of discontent should prevail among the medical men who are subjected to the government of a Board guided by nonsensical and incongruous notions of this kind; or, on the other hand, that these notions should foster the worst and most obstructive prejudices, amongst the people, against asylums? Is it likely that many able men will devote themselves to the special study of a disease, the professional care of which must be conducted under auspices so uninviting? Has Lord SHAFTESBURY, when airing his pseudo-philanthropical vagary respecting alienist physicians and the knowledge of lunacy among medical men, ever reflected upon the probable results of its indulgence?

But what have the Commissioners in Lunacy done to aid or advance the scientific study of lunacy, that would justify the tone which their Chairman adopts towards the medical profession? Have they added one fact or one principle to our knowledge of lunacy or its treatment? Have they at any time done more than carry into operation the knowledge educed by the labours of such men as CONOLLY and WINSLOW, BUCKNILL and TUKE? What of science—what but the most meagre official detail of business—is to be found in the Commissioners' reports? Their last report has just issued from the press, and even looked upon in an official (that is, routine) light alone, is inane beyond description. When the Parliamentary Committee of 1859 sat, the Commissioners were not able to give the Committee any definite idea of the status of insanity in the kingdom—the first question considered. Even the important question of the progress of insanity could not be answered by them. They abounded in vague surmises, and the Chairman of the Board indulged the Committee with a dissertation—curiously at variance with actual research—on the causes of an increase of lunacy which it was highly probable did not exist! Although the Government inquiry extended over three sessions of Parliament, the Commissioners in Lunacy, with a magnificent disregard of the public interest, did not reduce the data in their possession, which would throw light on the question of the status of insanity, until the inquiry had ceased. Again, in a charge of manslaughter tried at the Old Bailey not long ago, the Commissioners in Lunacy placed in the witness-box witnesses who deliberately swore that insanity had no effect in modifying or masking the course of a surgical injury!

We protest against the statement made by Lord SHAFTESBURY on the 27th ultimo. It was as unjust as uncalled for. We would willingly have let it pass unnoticed, on account of the main object which Lord SHAFTESBURY had in view (the removal of Bethlehem) when it was uttered; but this is the second time within a comparatively brief period that the House of Peers has had to listen to a similar assertion.

* Queries 193, 194.

THE trial of MORRISON *v.* BELCHER offers a warning to every honest votary of science who feels disposed to expose or combat imposition. In SOMERS's Vindication of Lord BURLEIGH it is written "that the warders, whose office and act it was to handle the rack, were ever specially charged to use it in as charitable a manner as such a thing might be." Some future historian, when detailing the extraordinary proceedings in the Queen's Bench on Monday last, may possibly remark, "The spirit of English justice was, on that occasion, so impartial, that it was regarded as a punishable offence to expose the only means whereby folly might be distinguished from knavery; because such exposition involved aspersions on personal character or motives." Without questioning the observations of the Lord Chief Justice, which influenced the issue of this case, we may still be permitted to regret that a jury should have deemed it advisable to give the plaintiff a verdict, and thereby saddle with at least his own costs a man distinguished in the world of science, who denounced a system of procedure based "on the strangest delusions that ever had misled the mind of man." Truth may be well said to be stranger than fiction. Few of the readers of Sir EDWARD BULWER LYTTON's novel "What will he do with it," ever supposed they would see the original of the merry cobbler whose "crystal" was therein so humorously described. We believe we may assume that the model stands proclaimed. The coastguardsman, to whom belongs the "consecrated beryl," whose properties have been so fully set forth by individuals of position and with some pretension to sense, never before spun so mysterious a yarn in the presence of such an audience, as he was enabled to do in the witness-box. Fancy the means of determining the past, knowing the present, and divining the future, being picked up, for a trifle, "from a dealer of curiosities in Brompton"! Who would not cry "new lamps for old," if they could have such a chance? We desire to speak of this matter with gravity and respect. Dignitaries in the church, statesmen, and others, have seen and testified to appearances of a character that "no fellah could understand." Why should we doubt their assertions, or for one moment suppose that the individual carrying such a treasure in his pocket is other than a good, true, and reliable person, who is above turning a penny by practising

on the credulity of his fellow-men. Far be it from us to adopt the suggestion of a learned judge, who, in his direction to a jury, observed, "the defendant, a gentleman of high connexions and unimpeachable character, has stolen a diamond ring, and you will find accordingly." We do not even whisper that there is a line beyond which folly should not be permitted to pass, or that there are limits within which superstition should be restrained. It is, we are now assured, sometimes dangerous to doubt as well as costly to comment. The issue in the case may be, "whether the plaintiff had been guilty of wilful imposture for the purposes of pecuniary advantage." The jury, if very intelligent, can declare that people under the influence of excited fancy think they see what they say they see; and even if the jury believe otherwise, they may not find that the plaintiff who "received recompence when his calculations were difficult," thereby "wilfully gulled and deluded the gentry and nobility of this country in order to make money." Certainly not! He may have unintentionally done so, or the gentry and nobility of the country may have gulled themselves. Perhaps the ex-coastguardsman had nothing to do with it! He, honest gentleman, may have kept his mind raised above all notions of pecuniary profit, and never intended that "Zadkiel's Almanac" should be benefited by the proceedings. Noble gentleman!—modern prophet!—unselfish publisher!—*tria juncta in uno.* What an illustration of our present advanced wisdom is afforded by these proceedings! Since the trial of JOHN HATHAWAY before Chief Justice HOLT in the year 1702, we have had no such illustration of the gross superstition which may exist amongst educated classes. This worthy was convicted of being "a cheat and an impostor." He pretended to be bewitched, and found witnesses who thought it "too solemn a thing" to discredit. The evidence then given by ELIZABETH WILLOUGHBY may be fairly contrasted with that of Mrs. ALLEN more recently set forth. The patience of the Judge was equally exemplary. We extract from the "Reports of the State Trials" a few questions and their answers, in order that they may render evident the progress which a century and a half have effected:—

"Elizabeth Willoughby sworn: I have seen him (Hathaway) when the breath came out of his mouth like the barking of a dog, &c.—Lord Chief Justice: How thick was it?—was it not like other folks'? Witness: No.—Do you think he was bewitched? I believe he was, my Lord.—I suppose you have some skill in witchcraft? Did you ever see anybody that was bewitched before? My Lord, I have been under the same circumstances myself when I was a girl.—How do you know you were bewitched? There was a woman taken up on suspicion of it.—For bewitching thee? Yes, my Lord.—Did you scratch her? My Lord, I had no power to do anything; *I flew over them all.*—You say you flew. Did you fast too? *One held me by one arm, and another by another, and another behind; and I flew sheer over their heads.*—Woman, can you produce any of those women *who saw you fly?* They are dead."

This was the popular belief in the age of LOCKE and NEWTON. Lord CAMPBELL has portrayed Chief Justice HOLT as "the model on which judges should be formed." We have now not less distinguished philosophers, and a no less upright Chief Justice. Have we profited by the experience of time? In spite of our improvements in the arts and sciences, and our advanced knowledge of the laws of light, we see that its reflection or refraction can supply to distempered fancy "appearances strongly calculated to deceive;" and should anyone boldly question the integrity of the individual who carries a globe of destiny in his pocket, some modern WILLOUGHBY may gravely state her experience,—with this difference as to result, that from very many her tale will find belief. Is it to be wondered at that in such a condition of the public mind, we should hear of fortunes being realized by clairvoyants, while table-turning and spirit-rapping have numerous disciples? Assuredly not. We have no doubt that, to many, the verdict giving damages to MORRISON will be an argument that the crystal ball in question is all that its disinterested owner "honestly believes," or at least states, it to be. We have no doubt that other crystals, of even greater powers, will in due course present themselves. Let medical men be careful how they express their opinions. As in philosophy there is no doctrine too absurd to number some supporters, so for exhibitions of this kind there will ever be found individuals to set forth properties or discover qualities which have no other foundation than that which a blind credulity or distempered fancy may supply. We regret this exhibition. It reveals a psychological problem not easy to solve. The evidence of the plaintiff throws into the shade the monster efforts of HOME and his brother mediums. Their occupation is gone. There is at present but the one crystal, and MORRISON is its keeper. This crystal enables its possessor to "confirm scripture:" "not to prophesy, but to predict." In it you may "see what you may see." Its owner cannot take money. He is, however, proprietor of an almanack, wherein you may learn his reading of the stars and the revelations of his ball. From him you may, when suffering from "uneasiness of mind," receive advice to the best of his judgment. If you be poor, "long and laborious" calculations are at your disposal, for their value. If you be rich—then "please remember the grotto," or the prophet, it matters not which. But should you feel disposed to question the sincerity of the whole affair—to doubt the honesty of this modern diviner—to believe that his implicit reliance is not wholly disinterested, or his philanthropy entirely unselfish,—bear in mind, before you say so, that trial by jury is a privilege of our constitution, and the market price of a seer's reputation is twenty shillings.

Medical Annotations.

"Ne quid nimis."

ACCLIMATIZATION.

IN one of his politico-economical essays, Macaulay has, if we mistake not, insisted upon the fact that there arose a marked change in the character of disease amongst us through the introduction of the potato and other roots and vegetable esculents into the diet of Great Britain. When the food of the people of these islands consisted mainly of wheaten and oaten bread with meat and fish, gouty and calculous affections, or other disorders connected with the uric-acid diathesis, and scurvy, were very frequently met with. At this time, what some have denominated the "albuminous group of aliments" was in excess. When the diet became much changed by more fresh and succulent vegetable additions, and the saccharine farinaceous elements were depended on, gout, stone, and scurvy diminished, but rheumatism, neuralgia, and diarrhœa augmented. How far this view might be supported by actual statistics, if such could by any possibility be obtained, is

doubtful. It is probable that the change which did take place, and is still illustrated, would be found to be connected with the extremer ranks of society. That a great change has, even more recently than the period alluded to, taken place in our dietetics cannot be doubted, nor that there is a considerable difference in the relative frequency of certain diseases. Among the "upper ten thousand," for example, where now-a-days are to be found the breakfast beefsteak-eaters and the "two-bottle men" that kept our forefathers company? Is there not less of gout and stone in their ranks than formerly? But who of them is unacquainted with oyster patties, iced puddings, lobster sauce, *meringues à la crème, marraschino, et id genus omne?* and who has not had an introduction to the troubles of dyspepsia and biliousness, and to all the blue-devils of hypochondria? On the other hand, amongst the poorer classes of society, how many are daily eking out an existence upon tea and bread-and-butter, a few potatoes and a little "kag-mag" or diseased meat, some radishes, and a red herring? And what are the ills that their flesh is heir to? Rheumatism, anæmia, worms, diarrhœa, phthisis, and rickets. There comes a bad summer, and corn fails—an untoward spring, and potatoes rot: sour bread, rice, and dripping, or a bit of fat measly pork, are all that can be obtained; and purpura, land scurvy, and slow starvation, are added to the train of human suffering. There never was a time when slight dyspepsia was more universally prevalent that it is now. There never was a time when people lost their teeth so early, and needed so many dentists, as in our day. We believe the increasing consumption of pastry, of ices, and of liqueurs, and the trade of "sweet-stuff" shops, to have no insignificant connexion with "the stomach and its difficulties." If mental hebetude, fits of the gravel, summer colic, &c., have diminished *pari passu* with the less frequent use of "brown October," sour ale, and hard cyder, chronic albuminuria and fatty degeneration have as certainly increased with the employment of gin, whisky, and the *petit verre*. "Kidney mischief," "gin-drinker's liver," "overworked brain," "mental anxiety," and "delirium tremens," are now common phrases on the popular tongue as expressing the chief items in the bead roll of the bodily infirmities of our day. The time may come, however, when much of this will be altered. We may yet see the day when an augmented list of edibles shall be at our command, and the poor as well as the rich be not hindered, either by the force of absurd conventional rules or by an ignorant squeamishness or stupidity, from turning to alimentary account sources of wholesome nourishment and enjoyment at present neglected. Not only may it be said that the British cook now throws away material out of which a French cook would obtain a savoury dinner, but it may be affirmed that the Englishman turns up his nose at that which would keep thousands from half starving if they had no prejudices. It is not, however, that the hungry stomach alone goes on helplessly craving from a sheer ignorance of, and conventional antipathy to, wholesome articles of diet, but the palate of the epicure remains shorn of its delights.

To help in overcoming this flaw in our social economics there has been established a Society, as our readers well know, whose object is the acclimatization of animals, birds, fishes, and vegetables within the United Kingdom. By the introduction and domestication of new animals and vegetables capable of affording nourishment, and the perfecting and hybridization of tribes already domesticated in these islands, it hopes to give for the future a more widely varied and more trustworthy store of aliments than either rich or poor have been in the custom of enjoying. When only a few articles are employed by a nation as the basis of its diet, its poorer people will always be liable to the risk, if not of famine, yet of the half-starvation of a year of scarcity. And this frequently threatens us. The wheat crop is poor, or the potatoes fail; there is a murrain amongst oxen, or the lambs die early; and there is an end to some chief article of alimentary dependence. Were our resources more extensive, the loss would not be so great. Though a failure as regards one vegetable or one animal might occur, we should have others to fall back upon; as it is, we are sadly limited. Hearty support should be given, then, to these endeavours to introduce amongst us the yam, Chinese sheep, Brazilian geese, Honduras turkeys, Virginian quails, &c.; to the valuable experiments connected with the artificial hatching of salmon, grayling, trout, perch, &c., with the growth of the so-called "Brazilian arrowroot" and the "bunch grass" of the slopes of the Sierra Nevada.

We are glad to find from the third report before us of the Society in question, that the Council regards its progress with so much satisfaction. With increased numbers and augmented means, it appears to be approaching the period when it can safely and prudently embark in the prosecution of experiments upon a larger scale than it has hitherto been able to attempt. As a knowledge of the Society and of its objects increases, many, no doubt, will be found ready to join the ranks, who, although themselves unable to assist personally in the Society's operations, may not be unwilling to contribute their aid to its support from a belief in the beneficial nature of its labours as regards the resources of their country.

THE PRESIDENCY OF ST. BARTHOLOMEW'S HOSPITAL.

THE recent election of Mr. Cubitt as President of St. Bartholomew's Hospital, in the room of Sir Geo. Carroll, deceased, was not effected without lively opposition at the time, and seems likely to be disputed on behalf of the corporation of London. The hospitals of St. Bartholomew, St. Thomas, and Bethlehem are very much under the control of the corporation, and, according to precedent at St. Bartholomew's, on the decease of the president of the hospital his place has been filled by the election of the Lord Mayor of the year. On the recent occasion, however, the friends of Mr. Cubitt (late Lord Mayor of London) nominated that gentleman in opposition to Mr. Rose, the existing Mayor. After discussion and a poll, Mr. Cubitt was declared to be elected. In consequence of these proceedings, we read that at the meeting this week of the aldermen of London, held at Guildhall, Alderman Copeland in the chair, a report was presented by Alderman Wilson from a Committee of Privileges, of which he was chairman. They stated that the governors of the Royal Hospital of St. Bartholomew having recently elected a donation governor to the office of President of that hospital, in contravention of the privileges of the corporation of the City of London, the committee had conferred with the corporation governors, members of the Court of Common Council, of the several Royal hospitals, and with their concurrence had directed the City Solicitor to prepare a case for the opinion of counsel as to the legality of the election. The case had since been prepared accordingly, and submitted to Sir Fitzroy Kelly, the Recorder, Mr. Bovill, Sir Hugh Cairns, and the Common Serjeant, who had given it as their opinion that the election of Mr. Cubitt as President of St. Bartholomew's was not valid, he not having been an alderman of London at the time of his election; and they advised that the question of the validity of his election should be raised by moving for a writ of *quo warranto*, in the name of the corporation, or of the Court of Mayor and Aldermen, or at the relation of any person having an interest in the question. The committee proceeded to state that they had again conferred with the other corporation governors of the Royal hospitals, and submitted to them the opinion of counsel, and those authorities requested them to lay their proceedings in the matter, with counsel's opinion, before the Court of Common Council, in order that such steps might be taken by the corporation as might be deemed advisable. The report was signed by Aldermen Wilson, Challis, Waterlow, Gibbons, Bexley, Abbiss, Allen, Gabriel, Carter, Hale, and Dakin. Sir James Duke asked to have the case on

which the opinion proceeded read, alleging that much depended on the way the case was drawn; but he was informed the request was irregular, and he did not press it. On the motion of Alderman Wilson, the report was agreed to and referred for consideration to the Court of Common Council.

HEWSON AND VIRCHOW.

PROF. GULLIVER, in one of his recent lectures at the Royal College of Surgeons, dwelt upon the general accuracy of Hewson's doctrine concerning the office of the lymphatic glands and thymus, as announced in a letter to Dr. Hagarth in 1773, and more fully expounded by Magnus Falconer in the third part of the "Experimental Inquiries" (1775). And, in conclusion, the learned Professor remarked that, although no further evidence of the validity of Hewson's position could be necessary, it had flowed in from an unexpected source; for no recent novelty in the history of disease had been better established than the fact that an undue progeny of pale cells in the blood is coincident with, or a direct consequence of, a morbid increase in structure or function of the lymphatic glands—a condition termed leucocythemia, or leukhemia. This important discovery by Prof. Bennett, of Edinburgh, has been fully confirmed, extended, or modified by Prof. Virchow in Germany, giving rise to a controversy which would be better considered after the subject had settled down into the sobriety of history. Prof. Gulliver has been discussing, in the course of his last two lectures, the achievements of British physiology during the brilliant period of the Hunters, and not without some pride has noticed its remarkable supremacy in the subject of the lymphatic system. He expressed a feeling of a sense of duty in remonstrating against the attempt of any foreigner to bear the laurels from the brow of one of the most illustrious disciples of that school: we might else be deprived of the honour even of such grand discoveries as that of Harvey—be doomed to see them conveyed abroad, and imported back again, to be patronized as novel results of foreign genius for the admiration of our profession at home. It would be sad indeed to behold a nation failing in reverence for the creators of its own intellectual glory, and ready to transplant it abroad. But more in sorrow than in anger the amazing fact must be marked, which the lecturer had learned entirely from the popular English version of the "Cellular Pathology," that the German Professor actually claims for himself the discovery of the office of the lymphatic glands in connexion with the so-called "leukhemia," and this without the least notice of our countryman Hewson, to whom, as Prof. Gulliver has now fully demonstrated, the important discovery of the use of the lymphatic glands and thymus exclusively belongs.

MILLINERS AND DRESSMAKERS.

THE Earl of Shaftesbury has undertaken the cause of the milliners and dressmakers. The Secretary of State for the Home Department declares that it is competent for the Royal Commission now sitting on "the state of children and young persons in trades and manufactures not regulated by law" to investigate their condition. It is to be hoped that a full and complete *exposé* of the system of "large establishments" will be satisfactorily accomplished, and that we may be thereby spared the invidious task of public censors. Since our last number appeared, Dr. Lankester has issued his report in reference to the condition of the dormitories and work-rooms of the establishment at which Mary Anne Walkley was employed. This report places matters in a far worse position than we had anticipated, inasmuch as on a scientific calculation of the amount of air requisite for health in the work-rooms of our metropolis, and with every disposition to take a favourable view of the locality and premises in question, Dr. Lankester declares that less than one-third of the minimum allowance was contained in the work-rooms wherein sixty-two young women were immured for an average of from thirteen to fifteen hours daily. The report, while setting forth the quantity of air essential for the purposes of health, proceeds to point out the necessity of increased allowance for those engaged in sedentary work. We have no desire to prejudge this question; but we suggest to the Commission a complete and perfect examination of the condition of the dormitories, the extent and character of ventilation in the work-rooms, the average number of hours occupied in work, the type of diseases to which milliners are chiefly liable, with such other matters as the proprietors, for "the sake of humanity," are ready in their own justification to offer. This can only be accomplished by summoning before the Commission individuals who, from their practical experience and acquaintance with details, can speak, not in the vindication, but for the exposition of abuses, the operation of which is felt, but the remedy for which involves considerations beset with difficulties which the Legislature alone has power to combat.

THE PREVENTION OF ACCIDENTAL POISONING.

LORD RAYNHAM'S Bill, when printed, has not proved to be very carefully considered, or workable in its details. He has not grappled with the great difficulty of defining poisonous substances; and he has confined the remedy to the one single suggestion which we have so often pressed upon the pharmaceutical chemists, but which this Bill would apply too arbitrarily over too large a field. As an important and well-meant attempt at legislating on this difficult subject, the wording of the Bill, however, deserves to be placed on record in these pages. It runs thus:—

"A Bill for the Prevention of Accidental Poisoning.

"Whereas it is expedient to prevent accidental poisoning: be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

"From and after the first day of November, 1863, no substance of a poisonous nature, or calculated to injure or endanger human health or life, if taken internally, shall be sold or exposed for sale by retail in any paper or other packet, but only in a glass phial or bottle of a hexagonal shape, of which five sides shall be fluted, and on the remaining side thereof a label shall be affixed with the word 'poison' and directions for use distinctly marked thereon; and every person who shall act in contravention of this Act shall for every such offence, on a summary conviction for the same before two justices of the peace at petty sessions in England, and in Scotland before two justices of the peace in justice of the peace court, or before the sheriff substitute of the county, or before justices at petty sessions or a divisional justice in Ireland, forfeit and pay a penalty not exceeding £5, together with such costs attending such conviction as to the said justices shall seem reasonable; and if any person so convicted shall afterwards commit the like offence it shall be lawful for such justices to cause such offender's name, place of abode, and offence to be published, at the expense of such offender, in such newspaper or in such other manner as to such justices shall seem desirable."

There are many practical difficulties which would attend so sweeping an act of legislation. Unless some definition were given, every six-ounce mixture from a druggist's shop must be so labeled, to the terror of the patients and discomfort of the physician and dispenser. As the Bill stands, there are few substances used in commerce or in medicine which would not be included in the list and dealt with thus arbitrarily. On the other hand, the general principle of the Bill is excellent, and is uniformly admitted to be so. Sir George Grey opposed the second reading on the ground that it went beyond what was necessary. And as if to point out the want which Lord Raynham endeavoured to supply, the same day's journal which records the speech of the Home Secretary contains the report of another case of poisoning by Barnett's disinfecting fluid. This is by no means the first time that such an accident has occurred, yet that fluid is habitually issued in ordinary bottles without any label to indicate that it is poisonous. The jury

returned a verdict that the deceased's death was the result of accident, at the same time adding they were of opinion that a fluid of a nature so dangerous to human life as Burnett's patent disinfecting fluid ought not to be sold without proper precaution being taken to show that it is poisonous. The Coroner said he would write to the firm, and enclose a copy of the verdict. This opinion has already, we believe, been expressed to the firm very strongly; and it were exceedingly desirable that the Home Secretary should have a discretionary power of ordering the observance of precautions such as this when it seems necessary for the public good. Similar powers are vested in that officer of State for other purposes. So far as dispensing chemists are concerned, however, it might be more desirable that the influence of the Pharmaceutical Society should be exercised than to attempt to employ a coercive and unyielding legislative measure which would not be adaptable to circumstances, and might thus be productive of inconvenience and hardship. The use of a hexagonal fluted bottle, *properly and carefully labeled*, for external application and potent medicines generally, is a precaution of the most simple and valuable character; and the influence of the Society could hardly be better employed than in procuring its general adoption.

VACCINATION.

EARL GRANVILLE'S reply to Lord Lyttleton's question on vaccination, in the House of Lords, on the 18th ultimo, may be fairly looked upon as a pledge on the part of the Government to amend the laws relating to the subject. The inquiries which have now for some time been carried on, under the authority of the Privy Council, into the arrangements for and mode of performance of public vaccination in different parts of the kingdom, have thrown into the clearest light the defects of the present vaccination laws, and the most probable means by which those defects may be eradicated. With this information before them, the Government should experience little difficulty in removing existing impediments to the efficient performance of public vaccination. The suggestions of the Epidemiological Society, adopted by Lord Lyttleton, seem to be well calculated to meet the shortcomings of the laws. Until provisions are made by which we may with some certainty ascertain who have been and who ought to be vaccinated, and for the systematic and authoritative supervision and regulation of vaccination, public vaccination will not be satisfactorily performed.

ELECTION OF COUNCILLORS AT THE ROYAL COLLEGE OF SURGEONS.

AT no time since the Fellows of the Royal College of Surgeons of England have had the power conferred upon them by the Royal Charter of electing from amongst their own body representatives for seats in the Council, has there been so much excitement as on the present occasion. Some time before the hour appointed the Fellows began to assemble, and might be seen, in little knots, discussing the merits and demerits of the candidates. At two o'clock Mr. President Luke (accompanied by the Vice-Presidents, Messrs. Skey and Hodgson, and the officials of the College), entered the library, when he shortly addressed the Fellows on the importance of the duties they were about to enter upon, and pointed out the mode of election, which would be by ballot, and conducted in the following manner:—Lists were provided, containing the names of the six candidates—Messrs. Hawkins, Tatum, Lane, Busk, Curling, and Hancock; from this voting paper the elector would strike out the names of those candidates for whom he did not intend to vote, taking care not to leave more than three, the number of vacancies. On another paper he would write his name and address, which would be checked with the list of Fellows; he would then deposit, in the large box in front of the President, the paper, previously folded up. The President then called upon the Secretary to read those portions of the charter and bye-laws of the College relating to election of Fellows into the Council. This having been done, the voting at once commenced by the President and Vice-Presidents correcting their respective lists and depositing the same in the balloting box. The voting was rather brisk up to four o'clock, when the electors came in slowly. It was not until twenty minutes to five o'clock that the chairman declared the poll closed, when, scrutineers having been appointed, the President declared Messrs. Lane, Busk, and Hancock duly elected. The number of votes polled by the respective candidates were as follows:—Mr. Lane, 199; Mr. Busk, 169; Mr. Hancock, 153; Mr. Hawkins, 125; Mr. Curling, 91; Mr. Tatum, 88.

MEDICAL FEES.

WHATEVER may be said in disparagement of the respectable members of the medical profession, it cannot be asserted with truth that they are either avaricious or extortionate. On the contrary, they give their labours ungrudgingly to those who are unable to remunerate them, and in many instances add pecuniary to medical relief. They are at the beck and call, night and day, not only of the rich, but of the poor, and in neither case do they stipulate for payment. It is a debt of honour in the case of the physician and in that of the surgeon in general practice, a debt which is often never paid. It is the bounden duty of the affluent classes to reward their medical attendants not only justly, but liberally. Instances of munificence upon the part of wealthy patients are recorded; but there are cases of meanness which act as a set off, though they are not always made public.

A case of the latter kind has lately occurred at Liverpool. From a small pamphlet which has reached our hands, we gather the following facts:—In July last, Dr. Vose was summoned by telegraph from Liverpool to Aberdeen, to visit the late Mr. George Grant, who had become indisposed while in the Highlands. Dr. Vose obeyed the summons, saw Mr. Grant at Aberdeen, took charge of him back to Liverpool, and then attended him for some time subsequently. Shortly after Mr. Grant's decease, Mr. Robertson Gladstone, one of his executors, requested Dr. Vose to send in a note of what was due to him for professional services. This was done, the amount being 205 guineas, being 186 guineas for the journey to Aberdeen (372 miles), and 19 guineas for ordinary visits. The other executors of Mr. Grant were Sir Thomas R. Gladstone, Bart., of Fasque, N.B., and Archibald Kelso, Esq., of Liverpool. Between these gentlemen and Dr. Vose a correspondence of some length took place. Dr. Vose's charge for going to Aberdeen was considered very heavy, and reference was made to the charges of medical practitioners in Edinburgh, and to a statement by Professor Miller, which ran thus:—"As to the railway tariff, some time ago an arrangement somewhat of the following was come to as to distant visits: 1, when occupying the day only, £25; 2, when night was included as well, £30."

"I had occasion," says Sir Thomas Gladstone, "in 1855, to summon Professor Miller to Fasque; the distance is 135¼ miles. He was absent one night and the greater part of two days, and received £30. I am of opinion that as Dr. Vose was absent two days and two nights, £60 would be a sufficient remuneration for the special visit; but as there is a charge of 19 guineas for ordinary visits, I should recommend £100 be paid in full to his account."

This *liberal* offer was, of course, rejected by Dr. Vose, who correctly stated, that the leading Fellows of the Royal College of Physicians of England were entitled to charge at the rate of not less than two-thirds of a guinea per mile when railways could be used, and a guinea per mile when they travelled on post roads. As Mr. Grant had been an old patient

of Dr. Vose's, he had charged him only at the rate of half a guinea per mile.

In subsequent letters the executors still haggled about the fee, and repeatedly stated that Dr. Latham went from London to Liverpool to visit a patient, and accepted 50 guineas for his service. Dr. Vose again very properly referred the executors to the authority of eminent London physicians with respect to the fairness of the charge he had made, and added, "If my charge be found correct, then it can be paid or not, according to the feelings which have most weight among the heirs, for the fees are merely a debt of honour. As a Fellow of the Royal College of Physicians of London, I make no demand for professional services.

In a subsequent letter, Sir Thomas Gladstone contended that "Dr. Vose was applied to as the friend and regular medical attendant of the late Mr. Grant, whose nephew and heir was ignorant of the high scales of charge (*sic*) to which Dr. Vose refers, or he would not have asked for his attendance;" and in a postscript to his letter, makes this very remarkable statement: "I cannot see that being a Fellow of the Royal College of Physicians entitles a country practitioner to charge the London fees."

Mr. Grant's heir was subsequently applied to by the executors. They stated the circumstances of the case, and suggested that 120 guineas should be tendered to Dr. Vose in full payment for all his services. Mr. Gordon, the heir in question, agreed with the executors. In reply, Dr. Vose said "that as he had given as explicit a statement as he was able of his claim, he had really nothing more to say upon the subject."

The last communication that Dr. Vose received from the executors finished with this somewhat singular sentence: "Under these circumstances we are reluctantly compelled to close our accounts without introducing your claim in them."

We publish the following letters *in extenso*:—

"Liverpool, May 29th, 1863.

"Dr. Vose begs to acknowledge the receipt of a letter from Sir Thomas Gladstone, Bart., Mr. Robertson Gladstone, and Mr. A. Kelso, dated the 27th instant, in which they intimate their repudiation of his claim for professional services against the estate of the late Mr. George Grant.

"Dr. Vose has merely to remark, with reference to the conduct which Mr. Grant's executors have thought proper to pursue in this transaction, that his claim is only for a rate of remuneration which he has been in the habit of requiring, and of receiving without question, for journeys to Southampton, Birmingham, Manchester, and other places—and that members of the medical profession, now practising in Liverpool, have received similar, indeed higher, rates of remuneration for distant journeys, than Dr. Vose claims for the visit to Aberdeen.

"The Executors of the late George Grant, Esq."

"16, Henrietta-street, Cavendish-square, June 18th, 1863.

"MY DEAR SIR,—I have read the printed correspondence submitted to me, at your desire, by Dr. Risdon Bennett.

"Assuming that the honorarium expected by you for the distant visit did not exceed what is customary in the profession out of London, but in England, I do not hesitate to say that your share of the correspondence in question has been strictly correct in principle—temperate, forbearing, and dignified in tone. Upon the other portion of it I do not dare to comment.

"For at least thirty years it has been the habit with London physicians to look for, and to obtain, two-thirds of a guinea per mile, for every professional visit into the country, performed by railroad.

"These terms were settled by the leading physicians and surgeons here, after the fullest consideration. It was obviously requisite that some general rule should be adopted, to govern and render uniform our practice, and to the best of my knowledge and belief the rule has been and is observed by all the 'men of eminence' among us.

"The fees thus settled are undoubtedly large. I can say for myself, however, and I believe that I might safely affirm for others, that sudden summonses, on these terms, to distant patients, have been felt generally as serious trials, I had almost said as nuisances. The temptation of the large remuneration is strong—but its receipt scarcely compensates the great and inevitable inconvenience—and the possible, even probable, injury to the physician—which such visits involve. His unexpected absence disappoints and brings distress to some of his London patients, and is the occasion of offence, and sometimes of alienation, to others. The confusion and trouble consequent upon the derangement of his existing engagements are very great, and are not so soon or easily rectified. I say nothing of the fatigue and the risks of the journey itself, though these are neither imaginary nor slight. Several medical men have been hurt when proceeding on such errands—and it is notorious that one eminent physician has lost his life—by accidents on the railroad. So that the remuneration, though large in amount, is not, in my judgment, excessive, and I feel sure that the physicians in London, whose services are most in request, will not consent to undertake long journeys into the country, if such journeys imply any risk of subsequent uncertainty or haggling about the usual honorarium. Fortunately for us, the question of 'a large reduction,' which one of your correspondents affirms to be 'necessary,' rests with ourselves.

"After all, the matter, to my mind, is a very simple one. The patient, or the friend who acts on his behalf, is bound to do one of two things: either to ascertain beforehand the terms on which the desired visit will be made, and to accept or decline the visit accordingly—or else having neglected to obtain this information, he is bound in honour to discharge, *in full*, the pecuniary return which is customary for such a visit.

"Believe me to be, my dear Sir,

"Faithfully yours,

"Dr. Vose. "THOS. WATSON.

"P.S.—Your communication was marked 'private;' nevertheless, as I found that in your correspondents' letters the name of my friend Dr. Latham was more than once taken in vain, I thought myself warranted in showing it to him. He permits me to enclose herewith a note, which he has written to me on the subject.

"I may add, that although the fee sent to Dr. Latham on the special occasion to which he refers was 100 guineas, he has, to my certain knowledge, received 150 for a professional journey to Liverpool."

"36, Grosvenor-street, June 15th, 1863.

"MY DEAR WATSON,—I have read the correspondence which you sent to me last night. Therein, I find, the executors of Mr. Grant appeal to me and my conduct as a physician, on a certain specified occasion, to justify themselves in withholding from Dr. Vose what does appear to me his fair professional remuneration.

"Executor No. 1 says, in a letter, October 3rd, 1862, 'I have had named to me that Dr. Latham was summoned down here from London some years ago, and his charge was to have been one hundred guineas, but as the patient died almost immediately after his arrival, he reduced the amount to fifty guineas.'

"Executor No. 2 says, in a letter, October 20th, 1862, 'I have been informed that Dr. Latham went from London to Liverpool to visit a patient and accepted £50 or guineas for his services.'

"And, finally, No 1, 2, and 3 say, conjointly, in a letter, May 27th, 1863, 'We ourselves know of a case of fifty guineas being received by one of the first physicians in London for coming down to Liverpool' From the context it appears that the physician whom they do the honour of thus designating is myself.

"Now, as a matter of fact, or even of fair inference, there is not a word of truth in any or all of these statements put together. It is remarkable that in five minutes I should be able to lay my hand upon notes written at the time (fifteen years ago) showing positively that what is stated did not occur and even could not have occurred.

"On Wednesday, February 23rd, 1848, I was summoned down to Liverpool by electric telegraph. I went by railway and arrived at midnight, and was taken by Dr. Formby and the late Mr. Bickersteth to see a fine handsome young man in the extreme agony of hydrophobia. He died at six o'clock the next morning in my presence. I returned to London as soon as I could.

"On turning to the memoranda of my professional business at that time, I find that I did a good day's work before I started for Liverpool on the Wednesday, and was in London again time enough to do no bad day's work on the Thursday. But, what of the fee? Certainly no "*charge*" was made by me—I doubt whether I ever made a charge by way of previous agreement in my life. It was impossible that I should have done so on this occasion—for I was summoned by telegraph. So that whatever was its amount, it could not possibly be in abate-

ment of the original demand. Well! what was the fee? I did not return with it in my pocket; but when the family had recovered from the awful shock they had experienced, they sent me one hundred guineas—so the matter stands recorded in my book of professional receipts for 1848.

"Thanks to two or three documents written at the time, and luckily preserved, I escape the imputation of that spurious liberality which the executors would hold up for imitation—and I escape too all suspicion of shabbily undervaluing the services of physicians, and denying the right of Dr. Vose to the just remuneration which he claims.

"Always, my dear Watson,
"Yours affectionately,
"P. M. LATHAM."

In taking an impartial review of all the circumstances connected with this case, we can arrive at only one conclusion—that Dr. Vose is entirely in the right, and Mr. Grant's executors completely in the wrong. Dr. Vose is a physician of very extensive practice and of the highest character. His position entitles him to the same scale of remuneration for the services he renders as the "most eminent" London physician. We utterly repudiate the assumption of Mr. Grant's executors that what they are pleased to call a "country practitioner" is not entitled to the same fees that a physician practising in London may claim. If Dr. Watson or Dr. Latham had been located in Liverpool, they would have been no less eminent than they justly are in the metropolis. Dr. Vose has acted throughout this transaction with a candour and dignity which become a foremost member of our profession. Had he conducted himself otherwise, he might have been to some extent a pecuniary gainer, but he would have lost the respect of his medical brethren.

Surely there must be some mistake in regard to the fees which the professors in Edinburgh have agreed to receive. Is Dr. Simpson a party to Professor Miller's arrangement? Does he consent to "acts of charity" in favour of his rich patients, to his own serious loss, and the detriment of those necessitous persons who we believe never appealed to his humanity in vain? Does Professor Syme—for, if anyone is to be regarded as an authority upon such a matter, he is certainly the man—endorse the tariff of Professor Miller? Is Dr. Christison a party to it? We think that the interests of the public, no less than of the profession, require explicit answers to these questions. Without anticipating them, we may safely leave the subject to the judgment of the profession.

Dr. Vose's dignified conduct will suffer nothing when placed in comparison with that of Mr. Grant's executors. He has acted throughout in a manner which might have been expected from the character he has hitherto sustained—that of a most able physician and a perfect gentleman.

Correspondence.

"Audi alteram partem."

THE REFORM OF BETHLEHEM HOSPITAL.

To the Editor of THE LANCET.

SIR,—As the *agenda* for the annual meeting of the Association of Medical Officers of Asylums and Hospitals for the Insane, to be held at the Royal College of Physicians on the 9th inst., are already sent out, will you kindly allow me through your pages to inform the members that, should time permit, it is my intention (with the permission of the President) at the afternoon meeting, to bring before the Association the whole question of the present state of Bethlehem Hospital, both as regards its site and the administration of its magnificent revenues.

It is impossible to read the able and eloquent speech on Bethlehem Hospital, delivered by the Earl of Shaftesbury in the House of Lords on the 26th ult., or Dr. Conolly's letter to the Commissioners in Lunacy, without feeling that the time for action has arrived. And these efforts at the reform of this noble foundation will, I think, be aided by a free discussion of the question by an Association one of whose objects is "the improvement of asylums and hospitals for the insane."

I am, Sir, your most obedient servant,
C. L. ROBERTSON, M.R. Cantab.,
Editor of the "Journal of Mental Science."

Hayward's-heath, Sussex, July, 1863.

ARTIFICIAL LIMBS.

To the Editor of THE LANCET.

SIR,—Under the above heading, my notice has been called to two letters in recent numbers of THE LANCET: the first written by Dr. Robson, of Cupar; and the second, offering same observations thereon, by Mr. H. Heather Bigg.

As the latter seems to call for some reply on my part, I trust you will give me a small space to set myself right, first, as to any insinuation conveyed by Mr. Bigg's letter that Dr. Robson wrote and sent to THE LANCET a complimentary letter either collusively with me or at my instance, both of which I utterly deny. I of course feel flattered by the terms in which Dr. Robson has written of my invention (as his artificial limb is, and that most thoroughly), and am as a mechanician pleased that my work has been successful in so well answering the object for which it was designed.

The limb as designed and executed by me for Dr. Robson is neither in form nor in many of its details common to any limb supplied either by Mr. Bigg, Mr. Gray, or Mr. Grossmith, and I am willing to submit the truth of this statement to the test of comparison. In my limb I have entirely departed from the plans detailed in Mr. Bigg's book on Prof. Syme's operation; and I refer to Dr. Robson's limb (the first one supplied by me) as a complete justification for such a course, and to establish my claim to success as a mechanist in my particular department.

Mr. Bigg, as well as myself, was an exhibitor of artificial limbs in 1862, and I much wish that that gentleman had left the question of the respective merits of our inventions in that department to rest upon the award of the jury upon that occasion, when I had the honour of receiving a medal for artificial limbs, and Mr. Bigg had not. And I should not now have adverted to my victory over Mr. Bigg as an exhibitor, but for his letter, which (in my opinion) was neither called for nor justified by Dr. Robson's spontaneous testimony to the value of my limb.—I have the honour to be, Sir,

Your obedient servant,
M. MASTERS.

Paragon-place, New Kent-road.

AMENDMENT OF THE MEDICAL ACT.

To the Editor of THE LANCET.

SIR,—Will you allow me, through your influential journal, to suggest to the Branch Councils, when they are about to make their observations on the Report of the Medical Acts Amendments, as instructed by the General Council the other day, an improved amendment, as I humbly submit, of the 40th clause of the Act.

Before I state it, I would just say that it seems absurd to enact that it should not be lawful for a person to pretend to be a medical or surgical name or title. This no person in his senses will ever pretend to be.

Let it be enacted, then, that no person (under certain penalties), unless registered under this Act, shall pretend, by acting in the capacity of such, or by taking or using any medical or surgical title, to be a physician, doctor of medicine, surgeon, &c.

Such an enactment alone, I feel assured, will meet the requirements of the medical profession, and enable them, when thought expedient, to stop gross and systematic quackery. Such a clause would not be abused by the profession. And now, once for all, it were a pity if the opportunity be not seized for endeavouring to obtain an efficient Medical Act.

I am, Sir, your obedient servant,
VINDEX.

June, 1863.

PROPOSED MEDICAL ASSOCIATION FOR INDIA.—By recent intelligence from India, it appears that it had been proposed to establish a medical association to watch over the growing interests of the profession there. The project was well supported by the profession and by the graduates of the Medical College at Calcutta; but opinion was divided as to whether an independent association, or a Bengal branch of the British Medical Association, should be formed.

Parliamentary Intelligence.

HOUSE OF LORDS.

FRIDAY, JUNE 26TH.

BETHLEHEM HOSPITAL.

Lord SHAFTESBURY, in moving for certain information regarding Bethlehem Hospital, commented at great length on the inadequacy of the present site for the successful treatment of insane patients. The limited space of seventeen acres, which it occupied, was totally insufficient for the moral means employed in the cure of insanity, such as agricultural employments and plenty of fresh and good air. The Lunacy Commissioners had long since pointed out the evils of the present site, and endeavoured to remedy it. He considered in detail the various objections which had been raised to the removal of the hospital into the country, and showed that they were not only absurd in themselves, but entirely in disregard of the interests of the patients. If the offer of the Governors of St. Thomas's Hospital were accepted, a site could be procured in the country within a short distance of London, a building better adapted for the modern treatment of the insane could be built, and land to the extent of 500 acres annexed to the institution for agricultural and other industrial purposes.

Lord GRANVILLE said there would be no objection to the production of the returns moved for.

The motion was then agreed to.

HOUSE OF COMMONS.

TUESDAY, JUNE 23RD.

VACCINATION (SCOTLAND) BILL.

The House went into committee on this Bill. On clause 1,

Mr. DUNLOP objected to the appointment of public vaccinators. There were already medical officers in every parish, and so far as the poor of these parishes were concerned, therefore, they were already provided for; but as far as all other parties were concerned, it was proposed by this Bill to provide public vaccinators. This was justly considered an interference with the ordinary practice of medical practitioners.

The LORD ADVOCATE said it was never intended that the public vaccinator proposed to be appointed under this Bill should be the only authorized vaccinator. (Hear, hear.) If this were the only and main objection to the Bill it was easily obviated. (Hear, hear.) The object was to appoint some persons who should see that these things were done. He hoped, therefore, his hon. friend would not press his objection.

After a few words from Sir J. Ogilvy and Colonel Sykes,

Sir A. AGNEW said that vaccination might be a prevention, but a far greater danger was to be apprehended from the public being liable to be brought into contact in railway carriages and other conveyances with persons suffering from small-pox. He hoped the hon. and learned gentleman, the Lord Advocate, would turn his attention to this subject.

Sir E. COLEBROOKE drew attention to the importance of the Government providing for a supply of proper vaccine matter. He thought that vaccination should be carried on by visits of the vaccinators among the people.

The LORD ADVOCATE said that in large towns the children would be brought to the vaccinators, but in rural places probably the vaccinator would go to the children.

Lord ELCHO thought the proposal to appoint these public vaccinators would make vaccination more certain than at present.

Mr. FINLAY suggested that for Highland districts an itinerant vaccinator should be appointed.

The LORD ADVOCATE saw no objection to adopt the suggestion of his hon. friend, but as some travelling expenses would have to be allowed it would be necessary to consider the matter.

The clause was then agreed to.

Clauses from 2 to 8, inclusive, with some amendments, were agreed to.

Clauses from 9 up to 14, inclusive, were, with some verbal amendments, ordered to stand part of the Bill.

Clause 15 was omitted.

The remaining clauses (with the exception of clause 27, which was struck out) were, after some verbal amendments, agreed to.

The schedules, with the exception of Schedule H, which was struck out, were agreed to, and the chairman was ordered to report the Bill.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on Thursday, the 25th ult., the following gentlemen, having undergone the necessary examination, were duly admitted Members of the College:—

Day, Edwin Edmund, 43, Curzon-street, Mayfair.
Dickson, John Robinson, M.D. New York, Kingston, Canada West.
Falls, William Stewart, M.D. St. Andrews, Bournemouth.
Head, Edward A. H., M.B. Lond., 44, Harley-street.
Johnston, William Woods, M.D. Edin., (of Java,) 21, Clifton-gardens, Maida-hill.
Playfair, Wm. Smoult, M.D. Edin., 8, Princes-street, Hanover-square.

At this meeting the following officers of the College were elected for the ensuing year:—Censors: George Owen Rees, M.D.; Edmund Lloyd Birkett, M.D; Charles West, M.D.; Charles Handfield Jones, M.B.—Treasurer: James Alderson, M.D.—Registrar: Henry Alfred Pitman, M.D.—Examiners on the subjects of General Education: John Spurgin, M.D.; Wm. Augustus Guy, M.B.; Robert Gordon Latham, M.D.—Examiners on the subjects of Professional Education:—Anatomy and Physiology: Francis Sibson, M.D.; Wm. Senhouse Kirkes, M.D. Materia Medica, Chemistry, &c.: Alfred Baring Garrod, M.D.; William Odling, M.B. Principles and Practice of Medicine: William Emanuel Page, M.D.; James Risdon Bennett, M.D. Principles and Practice of Surgery: John Eric Erichsen, Esq., F.R.C.S.; Frederick Le Gros Clark, Esq., F.R.C.S. Midwifery and the Diseases peculiar to Women: Arthur Farre, M.D.; Henry Oldham, M.D.—Librarian: William Munk, M.D.—Curators of the Museum: James Alderson, M.D.; Patrick Black, M.D.; William Wegg, M.D.; Francis Sibson, M.D. From the above list it will be seen that the course which we suggested of electing two examiners in Surgery has now been adopted. The names of the examiners will guarantee the value of the examination and give the highest importance to the general licence of the College in Surgery and Medicine.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations, received the diploma of Dental Surgery at a meeting of the Board, on the 17th ult.:—

Brennies, Daniel James, Cavendish-square.
Brock, John, Berners-street.
Boriase, William Grenfell, Barnstaple.
Caffaratti, Philip, Sunderland.
Duncan, Richard, Whitehaven.
Dykes, Robert Colville, Bedford-street.
Good, John Saxty, Sloane-street.
Ross, George, South-street.
Small, Henry Charles, Haverstock-hill.
Stivens, John Charles, Chester.

At a special meeting of the Court of Examiners on the 25th ultimo, Mr. John Robinson Dickson, M.D., of Kingston, Canada West, having undergone the necessary examinations, was admitted a member of the College.

PRINCE LEOPOLD.—The health of this young prince continues to excite some uneasiness. It will be remembered that, about two years ago, he repaired to Madeira for a change of climate.

NATIONAL MEDICAL REGISTRATION ASSOCIATION.—The following contributions have been received since our last announcement, towards the liquidation of outstanding debts amounting to £200, and for which the creditors are seeking to make the treasurer, John Lavies, Esq., liable:—Dr. George Budd, £2 2s.; Dr. John Watson, £2 2s.; Dr James Duncan, £1 1s.; Dr. Smiles, £1 1s.; Dr. G. Tebay, £1; Martin Ware, Esq., £1 1s.; Edmund Pearse, Esq., £1 1s.; T. Price, Esq., Deptford, £1 1s.; John White, Esq., £1 1s; W. U. Whitney, Esq., £1 1s.; Edward A. Newton, Esq., 10s. 6d.; Dr. Riding, 10s.; Dr. A. B. Duncan, 10s. 6d.; Hugh W. Statham, Esq., 10s.; Peter Marshall, Esq., 10s.; Carr Jackson, Esq., 10s.; Dr. Henry C. Andrews, 10s.; George Booth, Esq., £1 1s.

THE HARVEIAN ORATION was delivered at the Royal College of Physicians, on Friday last, before a somewhat meagre audience. The oration, it is understood, was written by Dr. Sutherland; but, in consequence of illness, he could not read it. This task devolved on Dr. Page. The oration was of the ordinary type. It congratulated the Fellows on the prosperity of the College, and gave a short sketch of those members who had died during the preceding two years. There was nothing striking either in the composition of the oration or in the subjects treated.

A SELF-SUPPORTING DISPENSARY AT WORCESTER.—Strenuous efforts have lately been made to establish one of these institutions in this city: they have signally failed. None of the medical gentlemen of the city would consent to act as its officers. Much, no doubt, may be said in favour of these schemes, if they could be properly carried out, but such has been found to be practically impossible. The evil connected with them so far outbalances the good which they promise, that they never can become generally acceptable, either to the public or to the profession. We think Sir Charles Hastings is entitled to the commendation of the profession for the part he has taken in reference to them.

OVARIOTOMY IN FRANCE.—M. Huguier lately operated in Paris upon an English girl, aged twenty, whose abdominal development was equal to that observed at the term of gestation. She was operated upon at Bellevue, in the immediate neighbourhood of Paris, in a house hired by the hospital authorities especially for the purpose of giving operations of this kind every chance of success. Before reaching the ovarian cyst the operator came upon a nodulated mass, which the gentlemen surrounding him at first took for intestine. It was, however, a cyst developed in the omentum, and which lay between the ovarian cyst and the abdominal walls. M. Huguier considers that no complication of this kind was ever recorded. The ovarian tumour being reached, was found to consist of some hundreds of compartments, some of which were filled with a thick ropy fluid; others with a clear and transparent liquid. The pedicle was seized and tied with silver wire, and cut off clean. The omentum, which contained about a dozen little cysts, was tied in the same manner and cut off. The operation lasted nearly an hour, and the patient died forty-eight hours afterwards of peritonitis.

A NEW METHOD OF AURO-OPHTHALMOSCOPY.—M. Giraud Teulon lately submitted to the Academy of Medicine of Paris an instrument composed of two plane mirrors inclined one upon the other at angles of ninety-six degrees. The objective lens of the ophthalmoscope is placed before one of the mirrors, and before the other an ordinary ophthalmoscopic mirror. The left eye is then put in contact with the left mirror and the lens, the right eye with the ophthalmoscope or the mirror of the right side. A lamp is now placed on the right, as in ordinary exploration, and the auto-examination of the right eye is then very easy. M. Giraud Teulon has used the instrument upon himself with great success.

ANECDOTE OF BARON LARREY.—In a charge of British cavalry at Waterloo, Colonel Weymouth, whether impelled by his own bravery or by some other cause, did not stop till he found himself amidst some French cuirassiers. He then endeavoured to ride back, but was pulled off his horse and wounded. One Frenchman levelled his gun at him, and was taking deliberate aim, when a French officer humanely knocked the gun down with his sword. He then addressed Weymouth in broken English and in a kind tone of voice. He also took a penknife out of his pocket, and said, "Look at thees canif, what you call penknife—Cockspur-street, Londres. I was in your country." It was Baron Larrey. The British officer, who had previously been fighting under the Duke of Wellington in the Peninsular War, would have entered the next world on the 18th of June, 1815, if the Surgeon-in-Chief of the French army had not interposed to save his life. He is at present residing in this land of good cutlery, deservedly esteemed by a large circle of friends.

BEQUEST.—A medical man born at Toulouse, Dr. Perez, has just died at Jassy, in Moldavia, where he had settled, and made a large fortune. He has left the whole of his property to the Hôtel Dieu, of Toulouse, with the condition that the hospital should perpetually harbour two incurable patients; and also two house-surgeons, who shall be found everything in the hospital, and shall leave only after obtaining all their diplomas. They shall then be immediately replaced by two others.

THE HALF-MAD.—It has seemed to the Commissioners in Lunacy that it would be very desirable if arrangements were made for the reception in lunatic hospitals of persons, of whom (say the Commissioners) "we have reason to know that there are many," not insane, but who, being conscious of a want of power of self-control, or of addiction to intemperate habits, or fearing an attack or a recurrence of mental malady, but being in all respects free agents, may be desirous of residing as voluntary boarders in an institution for the care and treatment of persons of unsound mind, submitting to a modified control, and conforming to the general regulations of the hospital. These hospitals are in most cases mainly supported by endowments or annual subscriptions; a few are in a great measure self-supporting. The Commissioners have just taken the opinion of Mr. Welsby upon the subject. He states that he does not find in the statutes for the regulation of registered hospitals any prohibition on such persons being admitted as inmates on the terms above suggested, and he is of opinion that they may be received accordingly, contracting alone, or jointly with others, to conform to certain regulations expressed or referred to.

ANDERSON'S UNIVERSITY, GLASGOW.—To the regret of all connected with the Medical School, Dr. Andrew Anderson, who has for many years so worthily occupied the chair of Practice of Medicine, resigned his appointment at the beginning of the present summer session. The trustees have elected, in his room, Dr. John R. Cowan, and to the chair of Medical Jurisprudence, vacated by Dr. Cowan, they have appointed Dr. William Leishman.

SATURDAY BANDS AT ST. THOMAS'S.—The authorities of St. Thomas's Hospital have given permission to a band belonging to one of the divisions of the police force to practise in the grounds of the Surrey Gardens on Saturday evenings.

MEETING OF MEDICAL OFFICERS OF ASYLUMS AND HOSPITALS FOR THE INSANE.—The annual general meeting of the Association of Medical Officers of Asylums and Hospitals for the Insane will be held at the Royal College of Physicians on Thursday next. Various papers connected with the objects of the Association will be read, and several gentlemen proposed as honorary members. That this Society has conferred great benefit upon the class of patients to which its objects immediately refer, there can be no reasonable doubt. It is to be regretted, however, that the names of many gentlemen who are foremost in the good work are not to be found in their number.

SURREY COUNTY HOSPITAL.—The committee of this hospital have issued a report stating that they have made important alterations in the original plan, some of them being based on the suggestions of Miss Florence Nightingale. The subscriptions have reached £7500; should they, however, fall short of the whole sum required (about £12,000) the committee will exercise a power reserved to them in the contract, and suspend the work when the building shall have been roofed in.

GOVERNMENT INQUIRY ON LEPROSY.—The committee appointed last year by the College of Physicians, at the request of the Secretary of State for the Colonies, is now engaged in analyzing and collecting the numerous replies to its inquiries which it has received from all quarters of the world where the disease has prevailed. The report will, necessarily, be looked for with anxiety by all persons interested. The subject is one of great interest, and there is no doubt that the gentlemen entrusted with its preparation will succeed, from the ample materials at their command, in furnishing a document which will be an important addition to medical science.

CONCEALMENT OF DEAD BODIES.—The effluvium arising from the premises of an undertaker, at Stoke Newington, has led to an examination by the police. The bodies of four infants and one adult were found, one of which must have been dead nine months. No explanation has yet been given of the occurrence; the undertaker, however, states that he will be able to produce medical certificates of death in all cases. Some further explanation than this appears to be absolutely necessary.

ST. PANCRAS WORKHOUSE.—New lunatic wards, with dormitories, are about to be added to St. Pancras workhouse. Of course it is expected that they will be formed upon the principles which have lately been enunciated with so much force by the chairman of the Commissioners in Lunacy.

YELLOW FEVER IN THE MISSISSIPPI.—A private letter from New Orleans states that yellow fever has broken out in Admiral Farragut's fleet on the Mississippi.

BRADFORD EYE AND EAR INFIRMARY.—A new Infirmary is to be built in Hallfield at a cost of £4500 (including furnishing), of which £2000 has been subscribed.

CESSPOOLS AND TYPHOID FEVER AT GALASHIELS.—Dr. Brisbane, having been consulted by the local commissioners as to the connexion of the town cesspools with fever, has reported that the facts as to typhoid fever, for some years past, proved the connexion of fevers with cesspools. It is remarkable that although typhoid or gastric fever is prevalent in Galashiels, relapsing fever is never met with, and typhus rarely.

TESTIMONIAL TO A SURGEON.—On Saturday, the 30th ultimo, a meeting of the inhabitants of Caversham was held at the National School to present a testimonial to W. B. Young, Esq. (of the firm of Vines and Young) on his retirement from the duties of Medical Officer of the Caversham District of the Henley Union. The testimonial consisted of a handsome bronze gilt clock with candlesticks to match, also several articles of plate. The clock bore the following inscription:—

"Presented to W. B. Young, Esq., by the Parishioners of Caversham and Sonning, on his resigning the appointment of Medical Officer of the district, after fifteen years' faithful service. 1863."

It is most gratifying that the poor, to whom Mr. Young had paid the most unremitting attention, contributed largely towards the purchase. This is a most honourable tribute to the humanity and skill of a union surgeon, and one of which Mr. Young may justly be proud.

MEDICAL VACANCIES.

Birmingham General Dispensary—Resident Surgeon-Accoucheur, vice Mr. J. L. Earle, who retires at Michaelmas.
Royal General Dispensary, Bartholomew-close—Physician, vice Dr. Andrew, resigned; Surgeon, vice Mr. F. W. Skey, deceased.
St. Marylebone General Dispensary—Surgeon, vice Mr. Laurence, resigned.

MEDICAL APPOINTMENTS.

J. REDDOE, M.D., has been elected a Fellow of the Statistical Society.
T. W. BLACKWELL, L.R.C.S.I., has been appointed Surgeon to the Constabulary, Balla, Co. Mayo, and Medical Officer to the Balla Dispensary District of the Castlebar Union, vice M. J. Jordan, L.K.Q.C.P.I., resigned, on being appointed Medical Officer to the Castlebar Union Workhouse.
B. J. BOULTON, M.D., of Horncastle, has been appointed President of the Lincolnshire Medical Benevolent Society.
W. R. BRUNTON, M.R.C.S.E., has been elected a Member of the Birmingham and Midland Counties Branch of the British Medical Association.
J. COOPER, F.R.C.S.E., Assistant-Surgeon to the London Hospital, has been elected Lecturer on Physiology at the London Hospital Medical College.
C. J. CURTIN, M.D., has been elected Medical Officer and Public Vaccinator for the Kanturk Dispensary District of the Kanturk Union, Co. Cork, vice M. Hudson, M.R.C.S.E., whose appointment has expired.
H. DODGSON, M.D., has been re-elected Medical Officer for District No. 2 of the Cockermouth Union, Cumberland.
J. S. HUGHES, M.D., has been appointed Professor of Surgery in the Royal College of Surgeons, Ireland, vice J. H. Power, M.D., deceased.
T. H. HUGHES, M.D., has been elected House-Surgeon to the General Infirmary, Chester, vice G. Fyfe, M.D., resigned.
J. H. JACKSON, M.D., Physician to the Metropolitan Free Hospital, and Assistant-Physician to the Hospital for Epileptics, has been elected Lecturer on Physiology at the London Hospital Medical College.
ALBERT M'DIARMID, M.D., of Rochester, has been appointed Assistant-Surgeon to the Convict Prison at Chatham. [The initials to Dr. M'Diarmid's name were, by accident, wrongly printed last week.]
R. S. MAIR, Deputy Coroner of Madras, a Licentiate of R.C.S.Ed., has been elected a Fellow.
L. W. MOORE, M.R.C.S.E., has been elected Medical Officer for the Debenham District of the Bosmere and Claydon Union, Suffolk, vice E. R. Lock, M.R.C.S.E., resigned.
F. W. SMART, M.D., has been elected Medical Officer and Public Vaccinator for the Workhouse and the Ballymahon Dispensary District of the Ballymahon Union, Co. Longford, vice I. Bracken, F.R.C.S.I., deceased.
J. S. STEWART, M.D., has been elected Medical Officer for the Parish of Tyrie, Aberdeenshire, vice J. Coutts, jun., L.F.P. & S. Glas., whose engagement will expire next month.
O. STURGES, B.A., M.B., has been appointed Medical Registrar to St. George's Hospital, vice E. R. Harvey, M.A., M.D., resigned.
W. WATERS, L.K.Q.C.P.I., has been appointed Medical Officer for the Carbury Dispensary District of the Edenderry Union, King's County, vice F. Pentland, L.K.Q.C.P.I., deceased.
J. F. WOODY, M.R.C.S.E., has been elected a Member of the Birmingham and Midland Counties Branch of the British Medical Association.
A. WYLLIE, M.D., has been elected Medical Officer for the Borough District of the Walsall Union, Staffordshire, vice J. Burton, M.D., resigned.

MILITARY AND NAVAL MEDICAL APPOINTMENTS.

W. E. ALLEN, Assist.-Surg. attached to No. 3 Battery 22nd Brigade, has been posted to E Battery 6th Royal Horse Brigade, Bengal Army, vice Assist.-Surg. R. S. Bateson, removed to another appointment.
G. BOUCHIER, Assist.-Surg. 93rd Highlanders, Bengal, has been appointed to take medical charge of the Civil Station of Jhelum, in addition to his other duties.
C. T. CARTER, M.R.C.S.E., has been appointed Surgeon to the 2nd or Edmonton Royal Rifle Regiment of Middlesex Militia, vice M'Cann, resigned.
J. A. COX, M.D., Assist.-Surg. Madras Service, has been removed from doing duty with the 23rd Light Infantry to the 13th Native Infantry.
W. F. DAVIS, Assist.-Surgeon Madras Service, from doing duty with, has been posted to, the 17th Native Infantry.
P. G. FITZGERALD, M.D., Surgeon Madras Service, has been posted to do duty with H.M.'s 105th Regiment.
W. FORRESTER, Surgeon Madras Army, from doing duty with, has been posted to, the 10th Native Infantry.
J. B. H. HANNAH, M.D., has been appointed to do duty with the 101st Foot at Bawul Pindee.
W. A. JACOB, M.D., Assist.-Surg. Madras Service, from doing duty with, has been posted to, the 24th Native Infantry.
A. C. MACLEOD, M.D., Surgeon Madras Army, has been removed from doing duty with the 8th Native Infantry, to do duty with H.M.'s 102nd Royal Madras Fusiliers.
J. MENNIE, Assist.-Surg. Bombay Service, has been appointed Civil Surgeon at Dharwar, the G. O. No. 243 of May 6th being cancelled.
T. MILLER, M.D., Assist.-Surgeon Bombay Service, on general duty Northern Division of the Army, has been appointed to the medical charge of the 28th Native Light Infantry.
W. MOIR, M.D., Assist.-Surg. Bengal Service, has been transferred from A to G Battery 22nd Brigade Royal Artillery, Meerut, in addition to his other duties.
W. H. MORGAN, M.D., Assist.-Surg. Madras Service, has been removed from the 17th Native Infantry to the 23rd Light Infantry.
J. S. MORTON, M.D., Assist.-Surg. Madras Service, has been removed from B Battery 3rd Royal Horse Artillery to the 36th Native Infantry.
W. NIVEN, Assist.-Surg. Bombay Service, Acting Port Surgeon at Bombay, has passed the required examination in Hindustani (Staff test).
C. F. OGILVIE, Assist.-Surg. Bombay Service Acting Civil Surgeon at Sholapore, has passed the required examination in Hindustani (Staff test).
J. K. OGILVIE, M.D., Surg.-Major Madras Army, from doing duty with, has been posted to, the 30th Native Infantry.
T. J. OXTON, Assist.-Surg. G Battery 11th Brigade Royal Artillery at Cawnpore, has been directed to take medical charge of the Station, Staff, and Right Wing of the 22nd Bengal Native Infantry, in addition to his other duties.
W. A. SMITH, M.D., Assist.-Surg. Madras Service, has been removed from the 30th Native Infantry to B Battery 3rd Royal Horse Artillery.
G. W. WALTER, Assist.-Surg. Madras Service, from doing duty with, has been posted to, the 4th Native Infantry.
J. WOOD, Assist.-Surg. Royal Artillery, has been appointed Staff Assist.-Surg., vice W. J. Mullan, placed upon half-pay.

Births, Marriages, and Deaths.

BIRTHS.

On the 22nd ult., at The Grove, Ipswich, the wife of Dr. Chevallier, of a daughter.
On the 22nd ult., at Flintfield, Co. Cork, the wife of Denis O'Connell, M.D., of a son.
On the 23rd ult., at Kent-terrace, Dalkey, the wife of Dr. R. St. J. Chinnery Lyon, of a daughter.
On the 24th ult., at Eldon-square, Newcastle-on-Tyne, the wife of W. F. De Medi, M.D., of a daughter.
On the 24th ult., at Queen-street, Whitehaven, the wife of John Thompson, M.D., of a daughter.
On the 26th ult., at Thurloe-square, Brompton, the wife of Matthew Baines, M.D., of a son.
On the 27th ult., at Darlaston, South Staffordshire, the wife of Samuel Partridge, M.R.C.S.E., of a son.
On the 27th ult., at Neston, Cheshire, the wife of D. Russell, M.D., of a son.
On the 27th ult., the wife of Dr. Knaggs, of the Kentish-town road, of a daughter.

MARRIAGES.

On the 16th ult., at the Parish Church, Belfast, John Robinson, Esq., of Burleigh-hill, Co. Antrim, to Louisa Victoria, third daughter of Hugh L. Stuart, Esq., of Douglas, Isle of Man, late Surgeon of H.M.'s 39th Regt. of Foot.
On the 23rd ult., at Glasgow, W. Monro, M.D., of Arbroath, to Jane, daughter of T. Kirkpatrick, Esq.
On the 25th ult., at St. George's, Hanover-square, J. N. Bourbu-hakl, Doctor to the Suez Canal Company, to Georgiana Frances, daughter of the late J. Patterson, Esq., formerly of the H.E.I.Co.'s Service.
On the 25th ult., at St. Giles's, Camberwell, J. J. Williams, M.R.C.S.E., late of the Army Medical Staff, of Marlborough-place, Walworth-road, to Jane, widow of the late Rev. W. J. G. Phillips, Vicar of Eling, Southampton.
On the 25th ult., at Eccles, T. Martin, M.D., of Worsley, to Frances, daughter of the late J. Crompton, Esq., of Boothstown, near Manchester.
On the 25th ult., at Oxford, W. D. Kingdon, M.D., of Exminster, Devon, to Jane Anne, daughter of W. Ryder, Esq., R.N., of Benbow House, Shrewsbury, and widow of E. Foulkes, Esq., of the same place.
On the 30th ult., at the Parish Church, Wisbeach, J. Clarkson M. Maynard, M.R.C.S.E., of Wisbeach, to Emily Jane, eldest daughter of the late Edward Phillips, Esq., of the same place.

DEATHS.

Recently, F. Pentland, L.K.Q.C.P.I., of Carbury, Enfield, Co. Kildare.
On the 18th of April, Ellary Armstrong, M.R.C.S.E., of Carlisle.
On the 18th ult., Ralph Heathcote, L.F.P. & S. Glas., of Waltham, Leicestershire, aged 68.
On the 19th ult., at Liskeard, Cornwall, F. T. Nicholas, L.R.C.P.Ed., aged 44.
On the 22nd ult., at Grantown, Strathspey, Inverness-shire, James Blakie, M.D., aged 30.
On the 23rd ult., at Allevard, near Grenoble, T. C. Gaulter, M.D., Deputy Inspector-General of Hospitals Army.
On the 23rd ult., at Friar-gate, Derby, J. Jones, M.R.C.S.E., aged 75.
On the 25th ult., at Hereford-road South, Bayswater, R. H. Buchanan, Surgeon, late of the H.E.I.Co.'s Madras Service, aged 59.
On the 25th ult., at Kirby-Muxloe, Leicestershire, C. G. Kemp, M.R.C.S.E., Surgeon-Dentist, of Leicester, aged 32.
On the 27th ult., at Northampton, James Foster Gray, F.R.C.S.E., aged 31.

BOOKS ETC. RECEIVED.

Vierteljahrschrift für die Praktische Heilkunde.
British and Foreign Medico-Chirurgical Review.
Mr. Stephens on the Criminal Law of England.
A Northern Plea for Peace: an Address by the Hon. W. B. Reed, of Pennsylvania.
Health and Meteorology of Manchester, May 2nd to June 13th.
Half-yearly Abstract of the Medical Sciences. Vol. XXXVII.
Art Journal.

Medical Diary of the Week.

MONDAY, JULY 6	ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M. METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M. ROYAL INSTITUTION. — 2 P.M. General Monthly Meeting. EPIDEMIOLOGICAL SOCIETY.—8 P.M. Dr. Wm. Ord, "On an Epidemic of Jaundice."—Mr. Radcliffe, "On the unpublished Report of the Cholera Commission of 1861 in India."
TUESDAY, JULY 7	GUY'S HOSPITAL.—Operations, 1½ P.M. WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEDNESDAY, JULY 8	MIDDLESEX HOSPITAL.—Operations, 1 P.M. ST. MARY'S HOSPITAL.—Operations, 1 P.M. UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M. LONDON HOSPITAL.—Operations, 2 P.M. METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—4 P.M. Meeting for Election of Officers.
THURSDAY, JULY 9	ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 1 P.M. GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M. LONDON SURGICAL HOME.—Operations, 2 P.M. WEST LONDON HOSPITAL.—Operations, 2 P.M. ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.
FRIDAY, JULY 10	WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
SATURDAY, JULY 11	ST. THOMAS'S HOSPITAL.—Operations, 1 P.M. LOCK HOSPITAL, Dean-street, Soho.—Clinical Demonstrations and Operations, 1 P.M. ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M. KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M. ROYAL FREE HOSPITAL.—Operations, 1½ P.M. CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

To Correspondents.

One Puzzled.—The continued exhibition of carbozotic acid and its salts produces a deep-yellow hue of the skin and conjunctivæ, and imparts to the urine an orange colour. In the experiments of Braconnot, these results, it is true, did not occur. But Drs. Calvert and Moffat attribute the failure to the use of potash salt, which is almost insoluble. The dose of the carbozotate of iron is from half a grain to two grains. We ourselves have not had any experience of its effects.

Militant.—We are unaware what is the practice in the line and volunteer corps with reference to medical officers subscribing to the band funds.

Dr. C. Black's "Successful Case of Ovariotomy" shall appear in our next impression.

Mr. D. Sinclair, (Halstead.)—There is no doubt that just grounds of complaint exist against the person referred to; but then his letter in its present form is libellous, even though the statement in it be true.

THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

To the Editor of THE LANCET.

SIR,—On the 16th of June last I received from the Actuary of the West of England Insurance Company the usual blank report to be filled up by me, respecting the health &c. of Mrs. G., who had been a patient of mine, but has now left the neighbourhood, enclosing a Post-office order for 10s. 6d. I returned an answer, stating my lowest fee to be £1 1s., an observation I before had occasion to make to the same office, at the same time requesting an answer if I was to return the Post-office order on the 19th; so that you will see there was no delay in my answering. I received the following:—

"West of England Fire and Life Insurance Office,
Exeter, 18th June, 1863.
Life Department.

"SIR,—I am in receipt of yours of yesterday's date, and under the circumstances will thank you to return the Post-office order for half a guinea. Our scale of fees is 10s. 6d. under £300, and 21s. for £300 and upwards, and these are accepted by the principal medical men in town and country. Mrs. G.'s insurance is for £100 only.

"I am, Sir, your obedient servant,
"CHAS. LEWIS, Actuary."

From the above it will appear that there are medical men both in town and country that are ready to encourage those offices that allow only half a guinea fee for small sums, such as £100 or under. Now, I would ask on what principle these persons act? The questions and answers are the same for £100 as for £1000; therefore they cannot say their time is longer occupied in the one case than the other, and it matters not to us what the sums insured may be, neither can I conceive we have any right to inquire. If any of the offices choose to give us a higher fee, well and good; but I think we are bound to resist taking the lesser fee of 10s. 6d. For my own part I am fully determined to do so. It certainly is a very mean and shabby action for any office at the present day to offer a less fee than a guinea. I perceive by your list, published last year, upwards of twenty offices that pay the guinea fee. Why should others not follow the example? In my opinion it is very unfair, if not dishonourable, to the medical profession.

I remain, Sir, yours obediently,
Lynton, June, 1863. J. CLARKE, M.R.C.S.

W. C.—Our correspondent should bear in mind the following case:—The wife of an American physician had been taking extract of nux vomica to relieve constipation, but in which it did not succeed. After three grains had been taken, the infant at nurse was attacked with laryngismus stridulus, and with spasms affecting the muscles of the face, neck, jaws, and trunk, having marked remissions.

Dr. Charles Taylor's letter on "Myopia" is very interesting and instructive, but too long for insertion. The question has already been very well answered in our columns by Mr. Carter.

Argus.—It is difficult to perceive the meaning of the question asked. It should be put in a more specific form, and the circumstances described to which allusion is made.

Mr. Braddock Rawes.—It is mentioned in the story of the Treasury of Rampsinitus, as told by Herodotus 3000 years ago.

B. B., an Ignorant Medical Pupil, will have to register when he enters some medical school. It is not necessary to register his pupilage.

MATERNAL IMPRESSIONS.

To the Editor of THE LANCET.

SIR,—The following case may perhaps be deemed worthy of a place in your pages:—

Mrs. N——, aged twenty-four years, primipara, a woman of delicate build, and highly nervous temperament, suffered a great deal during her pregnancy with morning sickness, faintings, and great despondency of spirits. About ten weeks previous to her delivery she had a few scattered spots of "herpes" on the front of her chest, which disappeared under ordinary treatment, when some kind, good-natured, knowing old woman informed her it was the "small-pox, and that without doubt her child would suffer from the same disease." The bare notion of this preyed very much upon her mind, and her husband and myself both failed in driving the absorbing notion from her brain.

On June 22nd she sent for me, having been in labour some four hours. On rupturing the membranes, a most unusual quantity of amniotic fluid escaped, coming away in gushes with the commencement of each pain. On the child being born, I noticed that it had been dead for several days, the head, face, and whole surface of the body being covered at about three-quarter inch intervals with pustules, exactly resembling in size, form, and appearance the small-pox vesicles at maturity. The depression in the centre was plainly marked. When the topmost cuticle was detached, there was no fluid of any sort underneath. The mother's first remark was, "Is the child marked?" one fully believing it would be so. We well know how mysterious are the freaks of nature in cases of this description. Still I think a careful compilation of numerous cases would tend eventually to throw more light on the matter.

The following cases have occurred in my practice:—

1. A child born with one eye of a light-blue colour (right eye); the other a dark hazel. Mother says she had seen a child with similar eyes sitting on a door-step in Lisson-grove.

2. Child born with mouth and upper and lower extremities resembling those of a dog. Mother states that she was worried and torn by a dog whilst she was in the seventh month of gestation.

3. Child born with left eye blackened as from a blow. The mother stated that her husband came home irritated, and struck her (eight hours previous to her confinement) on the corresponding part of her face.

4. A child born with four little fins or stumps for upper and lower extremities. The mother had been frightened by seeing a man maimed in his lower extremities, who used to traverse the streets on a board with wheels.

5. Child born ten nights after display of fireworks in commemoration of Crimean war. Child's feet were covered with bladders of serum, similar to those arising from scald or burn. The mother was alarmed by the descent of a stick of a discharged fire-rocket, which struck the roof close by the place where she was standing.

I remain, Sir, your obedient servant,
Paddington-green, June, 1863. JOHN S. BEALE, M.R.C.S.L.

M.R.C.S., (Country.)—Glycerine has been recommended as a soothing application to the parched lips, tongue, and fauces of patients suffering from idiopathic fever. It is pleasant to the taste, and forms a good substitute for the natural secretion of these organs until their normal functions be resumed.

Capt. Barusse.—The account, although extraordinary, is a well-attested instance of fruitfulness of a Scotchwoman, wife of a weaver, who bore him no less than 62 children, all of whom lived to be baptized, and some of whom are represented in Brand's "Antiquities of Newcastle" (vol. ii., p. 434) as living in that town in 1630.

Enquirer.—Acorns, chestnut-bark, willow-bark, tormentilla-root, and the root of the carnation are all rich in tannin.

Dr. T. B. Peacock.—At the present time the pressure upon our columns is so great that we regret we cannot promise early insertion to the communication.

VACCINE LYMPH.

To the Editor of THE LANCET.

SIR,—Your correspondent, Mr. Muriel, finds that vaccine lymph can be collected in glass tubes more expeditiously and with less waste than on ivory points. This may be so in his hands, especially in private practice, and with a single case. Nevertheless, after several years' experience as a public vaccinator, and having supplied many thousand charges of lymph annually for the public service, I still maintain that ivory points possess the advantage over tubes in economising both time and lymph; and further, whilst fully appreciating the utility and elegance of Dr. Husband's method, I am of opinion that dry lymph is less liable to decompose than liquid lymph, and, as a matter of fact, the dry lymph has for many years been sent to the most distant parts of the globe, and used there with perfect success, after having been of necessity kept for months. The dry lymph may lose its efficacy by lapse of time; whereas moist lymph, even in tubes, is to a certain extent liable to decomposition from the action of light or temperature, and, if so decomposed, will produce all the effects of an animal poison.

Your obedient servant,
A. B. STEELE, M.R.C.S.,
Liverpool, June, 1863. Mem. Nat. Vac. Estab.

Mr. Oliver Purchase.—The name of "chevalonga" is given by the natives of Chili to a fever of a malignant nature, which is much dreaded. It seems to be a species of putrid typhoid, and generally proves fatal. It may be said, however, that all fevers of a typhoid character are called "chevalonga" by the natives. John Mier's "Travels in Chili and La Plata" may be consulted with advantage.

WE have received 20*s.* from *Dr. Peacocke* (Maidstone) towards the Adams Defence Fund.

Mr. Henry Melville.—If the notice had been sent two months ago, it should have been inserted. It is now too late.

Beta.—In the opinion of some, the tincture of iodine has proved to be antidotal to the effects of strychnia, whilst others think more highly of camphor.

PURCHASED VACCINE LYMPH.

To the Editor of THE LANCET.

SIR,—On the 30th of May you published a leading article on the importance of securing pure vaccine lymph, and endeavoured to demonstrate the impossibility of *purchasing* it pure. I shall feel greatly obliged if you will point out the difference in lymph collected from healthy subjects with great care by qualified medical men who are not appointed by the Vaccine Board as public vaccinators, and by those gentlemen who are so appointed. I have generally observed that work done, commercially speaking, by private persons is as good, if not better, than that performed by Government.

The article in question says—"In one case the operation gave rise to ugly sloughing ulceration of the points inoculated; in three other cases severe and troublesome irritation of the arm occurred. All the patients were males in the prime of life, and in perfect health. Again, there has been communicated to us an account of the entire failure of a series of primary vaccinations, conducted with every care. In both sets of cases the lymph used had been obtained *by purchase*, and little or no doubt can be entertained that in the first set it was of an improper character, and that in the second it was altogether inert."

Now, any person who has had any experience in vaccination will know what value to set on the above remarks; but lest I may be misunderstood, allow me to quote the words of Dr. Wm. Seth Gill, who writes as follows in THE LANCET of the 27th June:—

"During the present epidemic I have revaccinated 100 adult persons *from the arms* of healthy infants, out of which 10 only passed through the regular stages of the disease; these had the eschars deep and prominent of primary vaccination, and were between the ages of fifteen and thirty; 3 suffered severely from erysipelatous inflammation, extending over the whole arm into the axilla, and required the usual topical and general treatment, but recovered; the rest had but slight appearances, which receded and disappeared in three or four days; proving, I think, unmistakably the efficiency of one perfect vaccination."

I see no reason to doubt the purity of the lymph here, and yet the same results were obtained as if the lymph had been *purchased*. Surely the readers of THE LANCET must perceive the shallowness of reasoning which argues that bought lymph cannot be as good as that which is procured gratuitously.

The prevalence of small-pox lately has shown some singular facts, and the large number of bad arms is one of them. A public vaccinator of great experience informs me that he has had very many cases of severe inflammation of the arm. All cases were vaccinated from infants, and the worst cases of small-pox occurring in this parish were in patients who had been vaccinated, while in the last outbreak it was the reverse.

If the hundreds of medical men who have been supplied with lymph by me, when unable to obtain it elsewhere, would kindly communicate to you the results of their experience of it as compared with that obtained elsewhere, we should be able to form an accurate notion of the value of lymph preserved in capillary tubes. I have sent them frequently to Australia, and they have been spoken highly of. I have also sent them to India, China, New Zealand, &c., but have not heard the results.

Your obedient servant,

Endell-street, June, 1863. WM. FAULKNER, M.R.C.S.

Dr. Palmer's valuable paper, on the "Registration of Disease," has been in our hands since the 2nd of April, 1863, and consequently much before the paper of Dr. Crompton, already referred to. The tables added were carefully made up, giving a complete registration of the diseases occurring in the practice of one medical practitioner (himself) for twelve months. It has not yet appeared owing to its length and the great pressure on our space. We cannot undertake to publish it at once; but we will do so as soon as possible, and meantime it shall be brought under the notice of Dr. Farr.

"BROKEN BONES."

M.R.C.S.—The public will support quacks and impostors, do what we will. The case forwarded to us is no exception to the rule.

Mr. J. C. Wordsworth's paper shall be inserted in an early number.

M. A. B.—We regret that the Bill has not succeeded. The object was laudable, and, we need not say, it had all our sympathy; but it was too sweeping a measure.

Hoc Age; Nil Desperandum.—We believe that the fears of the lady are entirely without foundation. There were clear and distinct causes for the epileptic seizures altogether independent of hereditary influences. There is no objection to the marriage on any physiological grounds.

IF *A. C.* will send us his name and address in confidence, he shall receive a private note.

THE LAW OF INFECTIOUS DISEASES.

To the Editor of THE LANCET.

SIR,—Since my communication to you on the supposed deficiency in the law respecting persons infected with small-pox appearing in the public streets, I have ascertained that a person may be prosecuted at the sessions for so exposing himself (*vide* Burn's Justice—Burn and Chitty—vol. v., p. 230), and no doubt a conviction would follow. But the difficulty is as to who should prosecute. Would boards of guardians or vestries? and in default of the boards, would it be left to individuals to bear the expense and trouble attending such a prosecution? I am, Sir, your obedient servant,

Cleveland-road, June, 1863. WM. D. KEY, M.R.C.S.

Naturalist.—The tarantula would appear to be not the only venomous spider. In the April number of the *Australian Medical Journal*, two cases are described, in which serious effects resulted from persons, when sitting upon the water-closet, having been stung or bitten by spiders.

Brunensiensis is thanked. The correction is now made.

A PECULIAR SKIN DISEASE.

To the Editor of THE LANCET.

SIR,—In reply to a letter which appeared in your journal of June 13th, under the above heading, from Mr. Bain, I beg to say that I was myself a sufferer from a perfectly similar skin disease last year on my voyage to Melbourne. The circumstances were these:—We left England in the chilly month of March, and *before* arriving at the Bay of Biscay I found myself troubled with an eruption exactly like that your correspondent has described. From my duties calling me among a large collection of persons of all classes and countries belonging to the third-class passengers of the ship, to which I was surgeon, I naturally feared that I had contracted scabies, but was puzzled on account of the non-appearance of the eruption (which itched intolerably when in bed) between the fingers, &c. I am aware that the latter is not imperative in scabies; but when a few minute vesicles appeared on my face, I was more than ever at a loss. I, however, treated myself in an ordinary manner with saline aperients, and, to be certain, with mild sulphur ointment, when I recovered in a week or ten days.

Now, I was quite conversant with "prickly heat," but conceived it impossible that I could be the victim of that nuisance so soon after leaving England, although I knew we should have enough of it in the tropics, or even before arriving at Madeira.

There was no other case similar to mine in the ship at the time I was affected; but before we arrived in a hot or even a very mild climate, "prickly heat" showed itself on one-half the people on board of all grades, and in some cases very severely, particularly among the younger children and infants, but in all cases succumbed to the above-mentioned treatment, with frequent cold ablution, and substituting sago, arrowroot, &c., for the frequent salt diet of the second and third class.

Now, Sir, considering the temperature of the climate we were in (an ordinary English one of April) when I was ill, it occurs to me that from a peculiar state of the blood (for I have always had the best health) we may get a disease quite resembling the "prickly heat" in almost any country; in fact, there is, I think, little doubt but that many of the newly discovered skin diseases are really in the first instance "blood diseases," and will yield to ordinary saline treatment. Your obedient servant,

York-place, Islington-green, June, 1863. E. WADLEY, M.R.C.S. Eng.

To the Editor of THE LANCET.

SIR,—The disease mentioned by Mr. Bain appears to have been "herpes circinatus," a non-contagious disease, but occurring in persons subject to the same atmospheric or other influences. Attention to diet and lead lotions is generally all the treatment required. "Prickly heat," as I have seen it in the East Indies, is a papular disease, (Lichen tropicus), and not contagious.

I remain, Sir, yours, &c.,

Warrington-terrace, Maida-vale, June, 1863. R. S. SISSON, M.D.

Theta.—Where a sufficient dose of "aniline" has been taken, a peculiar blueness of the lips, tongue, and nails, with a dusky hue of the countenance, have been observed. We do not hear much of its employment now.

Dr. Shearer shall receive an answer next week.

A Union Medical Officer.—Lumley, in his Manual, in relation to the class of persons whom the Poor-law medical officer is bound to attend, makes the following remarks:—

"The fact that the guardians grant the medical relief upon loan does not prevent the parties relieved from being paupers, whom the medical officer is bound under his contract to attend.—7 *Q. C.* 196. So domestic servants must be attended by the medical officer, if the guardians consider them destitute and order them to be relieved.—*Ib.* 297. The same rule exists with reference to a person belonging to a club, and entitled to medical or surgical aid from the club. If such aid be not supplied or be not adequate, and if the guardians make an order upon the medical officer to attend the case, it is his duty to do so.—8 *Q. C.* 165. But if he have knowledge of any means or sources of income possessed by any sick person of the class referred to, he should communicate it to the guardians, that they may determine whether the person is actually destitute.—*Ib.*"

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Shearer, Liverpool; Mr. M. Masters; Dr. Peacocke; Mr. Keele; Dr. Robertson, Hayward's Heath; Dr. H. Melville; Mr. Davis, Northampton; Dr. Meller; Mr. Strutt, Tutbury, (with enclosure;) Mr. Arminson, Preston, (with enclosure;) Dr. Blanshard, Wistow, (with enclosure;) Mr. Stickings, Lenham, (with enclosure;) Messrs. Boulton and Co., (with enclosure;) Messrs. Lacy and Co., Newark, (with enclosure;) Mr. Stuart; Mr. Johnston, (with enclosure;) Mr. Colman; Mr. C. Orton, Etruria; Mr. Virley, Gamlingay, (with enclosure;) Mr. Lewis, West Bromwich; Mr. Dealtry, (with enclosure;) Dr. Thompson, Gateshead, (with enclosure;) Mr. T. Lester, Hull; Dr. Lionel Beale; Mr. T. Holmes; Dr. Chattaway, Kingsland, (with enclosure;) Mr. Maynard, Wisbeach; Mr. Sinclair; Mr. Oswald, Rochford; Mr. Owen, Sandbach, (with enclosure;) Dr. Phipps, Manchester, (with enclosure;) Mr. J. Dewar, Trowbridge, (with enclosure;) Dr. Boulton, Horncastle; Mr. Rickards, (with enclosure;) Mr. H. C. Jones, Long Melford; Dr. Parkin; Dr. Armstrong, (with enclosure;) Dr. M'Diarmid, Chatham; Mr. Curtin; Mr. Mair; Dr. Godfrey, Enfield; Mr. Watson; Mr. Ewebank, Durham; Dr. Waters, (with enclosure;) Mr. White; Mrs. Cotton; Mr. T. Johnson, Birmingham; Mr. Wightman, Halifax, (with enclosure;) Mr. J. Appleyard, Cleethorpe; Mr. Cookson, Preston, (with enclosure;) Dr. Land, (with enclosure;) Mr. Buckenham, Brandon; Mr. Bailey, Plymouth, (with enclosure;) Mr. Wright, Markfield; Mr. Young, Basingstoke, (with enclosure;) Mr. Cooke, Manchester, (with enclosure;) Dr. Foster; Mr. Smith, Bude, (with enclosure;) Mr. Wood, Liverpool; Mr. Hope, Halifax, (with enclosure;) Mr. Key; Mr. Best, (with enclosure;) A Medical Grat; R. H. P., (with enclosure;) Royal Institution; Argus; W. P., (with enclosure;) A.; Confido, (with enclosure;) Ludus Ingenuus; A. C.; &c. &c.